

State Route 12/Church Road Intersection Improvements Project

SOLANO COUNTY, CALIFORNIA
DISTRICT 4-SOL-12 (PM 24.3/25.2)
EA 0G0500; Project ID 0400000305

Initial Study with Negative Declaration



**Prepared by the State of California Department of Transportation and
Solano Transportation Authority**

July 2017

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General Information About This Document

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternative formats, please call or write to Caltrans, Attn: Zachary Gifford, 111 Grand Avenue, Office of Environmental Analysis, MS-8B, Oakland, CA, 94612; (510) 286-5610, Voice, or use the California Relay Service TTY number, 711.

Responses to comments received during the public circulation of this document are included in **Appendix I**. Changes made between the draft Initial Study and final Initial Study in response to public comments are indicated with a vertical line in the left margin, seen here.

INITIAL STUDY WITH NEGATIVE DECLARATION

04-SOL-12	PM 24.3/25.2	EA 04-0G0500; Project ID # 0400000305
Dist.-Co.-Rte.	P.M/P.M.	E.A.

Project Title:	State Route 12/Church Road Intersection Improvements Project
Lead agency name and address:	California Department of Transportation 111 Grand Avenue Oakland, CA 94612
Contact person and phone number:	Zachary Gifford; (510) 286-5610
Project Location:	Solano County
Project sponsor's name and address:	Janet Adams, Director of Projects Solano Transportation Authority 1 Harbor Center Suite 130 Suisun City, CA 94585
General plan description:	Sub-Planning Area 2—Esperson Property, River Walk, Homecoming Neighborhood (adjacent); and Sub-Planning Area 4— Northwest Area Neighborhoods (adjacent)
Zoning:	Transportation
Description of project:	The California Department of Transportation proposes to enhance operation and safety characteristics at the intersection of SR-12 and Church Road by removing turn movements from the through traffic with the addition of a left turn lane, and providing acceleration/deceleration lanes for right turns. Refer to page 1 (Project Information) for additional detail.
Surrounding land uses and setting:	The project site is adjacent to one single-family residence and areas used for agricultural production.
Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):	None Anticipated

Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):	None Anticipated
Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?	Formal letters informing the Yocha Dehe Wintun Nation and the Cortina Band of Wintun of the proposed project were submitted on October 21, 2015. Both tribes had until November 20, 2015 to formally request consultation. The Yocha Dehe Wintun Nation responded with a letter received on December 14, 2015 stating that the Yocha Dehe Wintun Nation was not aware of any known cultural resources near the project site, and requesting, if any were identified, the contact of Anthony Flores, Cultural Resources Site Protection Manager. The Cortina Band of Wintun did not request consultation.

Additional copies of this document, as well as the technical studies it relies on, are available for review at the district office, 111 Grand Ave., Oakland, CA 94612. This document is also available online at:
<http://www.dot.ca.gov/envdocs.htm>


Stefan Galvez-Abadia
Chief, Office of Environmental Analysis
California Department of Transportation, District 4, Oakland


Date

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A. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 9 for additional information.

<input checked="" type="checkbox"/>	Aesthetics	<input checked="" type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Geology/Soils
<input type="checkbox"/>	Greenhouse Gas Emissions	<input checked="" type="checkbox"/>	Hazards and Hazardous Materials	<input checked="" type="checkbox"/>	Hydrology/Water Quality
<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources	<input checked="" type="checkbox"/>	Noise
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services	<input type="checkbox"/>	Recreation
<input checked="" type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Tribal Cultural Resources	<input type="checkbox"/>	Utilities/Service Systems
<input checked="" type="checkbox"/>	Mandatory Findings of Significance				

B. DETERMINATION

On the basis of this initial evaluation:

<input checked="" type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Melanie Brent
Deputy District Director, Environmental Planning and Engineering
District 4, California Department of Transportation

07/19/17
Date

Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to make improvements to the State Route 12 (SR-12)/Church Road Intersection. The purpose of this project is to enhance operation and safety characteristics at the intersection of SR-12 and Church Road by removing turn movements from the through traffic with the addition of a left turn lane, and providing acceleration/deceleration lanes for right turns.

Acceleration/deceleration lanes would be provided at the Church Road intersection for right turns, along with separate left turn pockets. The project would also correct non-standard shoulder width by providing standard eight foot shoulders. Twenty-five trees in the clear recovery zone would be removed. The project limits extend along SR-12 approximately 1300 feet west and 800 feet east of the intersection with Church Road; and extend approximately 600 feet north along Church Road in the City of Rio Vista, Solano County, California.

Determination

Caltrans has prepared an Initial Study for this project and has determined from this study that the proposed project would not have a significant effect on the environment for the following reasons (as discussed in the CEQA Environmental Checklist):

The proposed project would have no effect to air quality, geology and soils, greenhouse gas, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources, and utilities and service systems.

The proposed project would have less-than-significant effects to aesthetics, agricultural resources, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, transportation & traffic, and mandatory findings of significance.


Melanie Brent
Deputy District Director, Environmental Planning and Engineering
District 4, California Department of Transportation

07/14/17
Date

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Project Information

Location

SR-12 is a two-lane, conventional highway that serves as the major east-west corridor between Napa, Sonoma, and Solano Counties and the San Joaquin Valley. The highway is the only east-west route connecting Solano County (County) to the Stockton area. The intersection of SR-12 and Church Road/Amerada Road is located at PM 24.8, northwest of the City of Rio Vista downtown area. The project vicinity is depicted in **Figure 1**.

Purpose and Need

The purpose of this project is to enhance operation and safety characteristics at the intersection of SR-12 and Church Road by removing turn movements from the through traffic with the addition of a left turn lane, and providing acceleration/deceleration lanes for right turns.

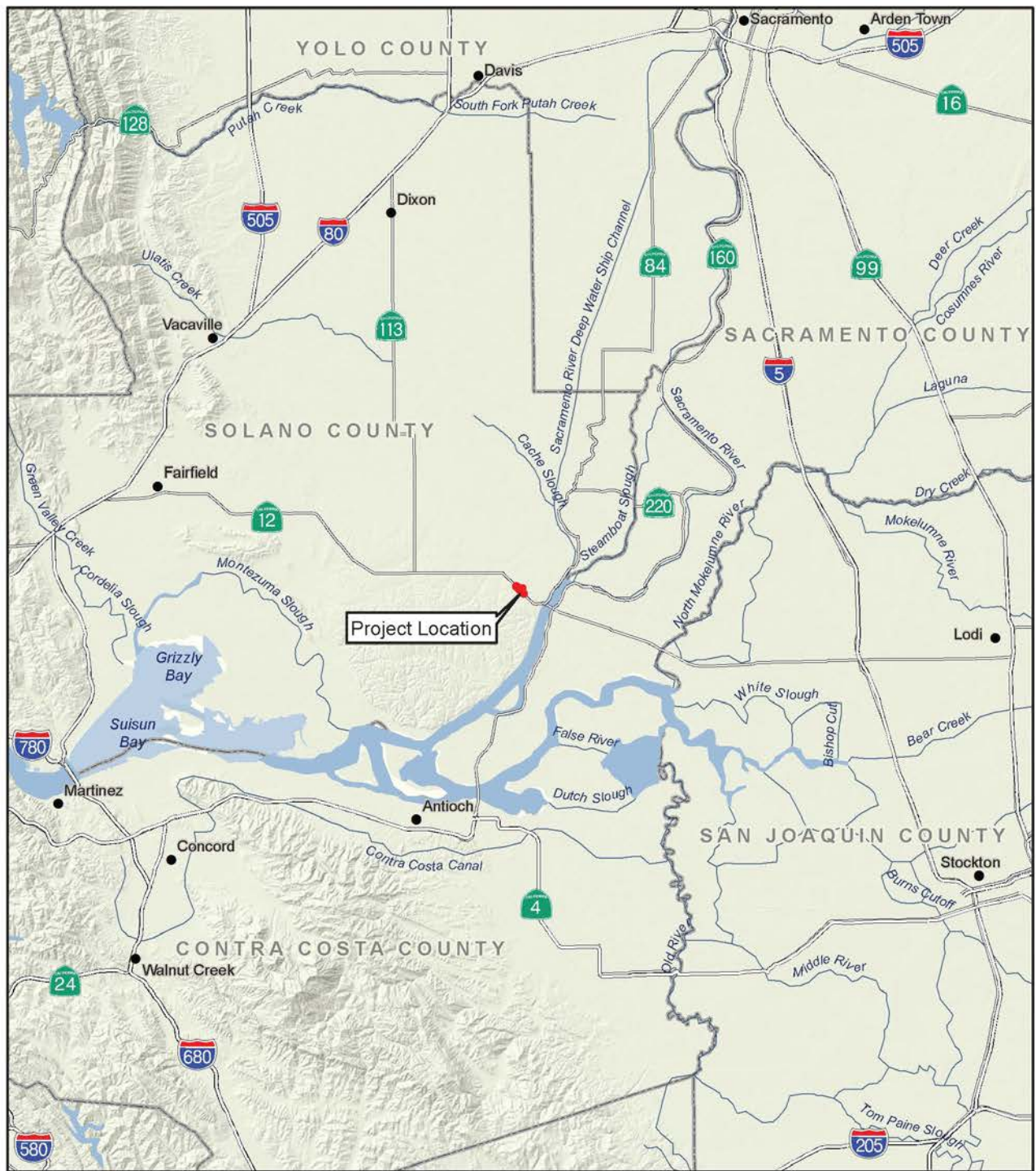
Vehicle queuing to enter and exit SR-12 from and to Church Road currently causes delays to through traffic on SR-12. Constructing an exclusive left turn lane and acceleration and deceleration lanes would provide a refuge area for these vehicles.

Funding, Programming, and Estimate

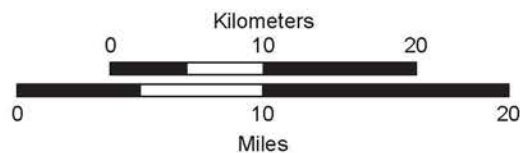
Current funding sources include Rio Vista's share of the Solano Transportation Authority's Regional Traffic Impact Fee program. Potential future sources include Regional Transportation Plan-Local Roads Program, Local Highway Safety Improvements Program, and local county shares of the State Transportation Improvement Program (STIP). It has been determined that this project is eligible for Federal-aid funding.

The SR-12/Church Road Intersection Improvements project has not been programmed in the Statewide Transportation Improvement Program or Long Lead State Highway Operation and Protection Program (SHOPP). **Table 1** shows the current funding source Fiscal Year Estimates by project phase.

The Cost Estimate assumes that funding will be secured in 2017 to proceed with Plans, Specifications and Estimates (PS&E) no later than June 2017. It also assumes that funding for the Construction, Right of Way, and support costs will be secured in time for the project to proceed to construction in 2019.



- Major Cities
- Major Roads
- Rivers and Streams
- County Lines
- Waterbodies



Project Vicinity **Figure 1**

Table 1 Project Fiscal Year Estimates

Fund Source	FISCAL YEAR ESTIMATE								
Local	Prior	14/15	15/16	16/17	17/18	18/19	19/20	Future	Total
Component	In thousands of dollars (\$1,000)								
PS&E Support					\$240	\$120			\$360
Right-of-Way Support					\$60	\$30			\$90
Construction Support						\$150	\$250		\$400
Right-of-Way						\$80			\$80
Construction						\$1,000	\$2,120		\$3,120
Total					\$300	\$1,380	\$2,370		\$4,050

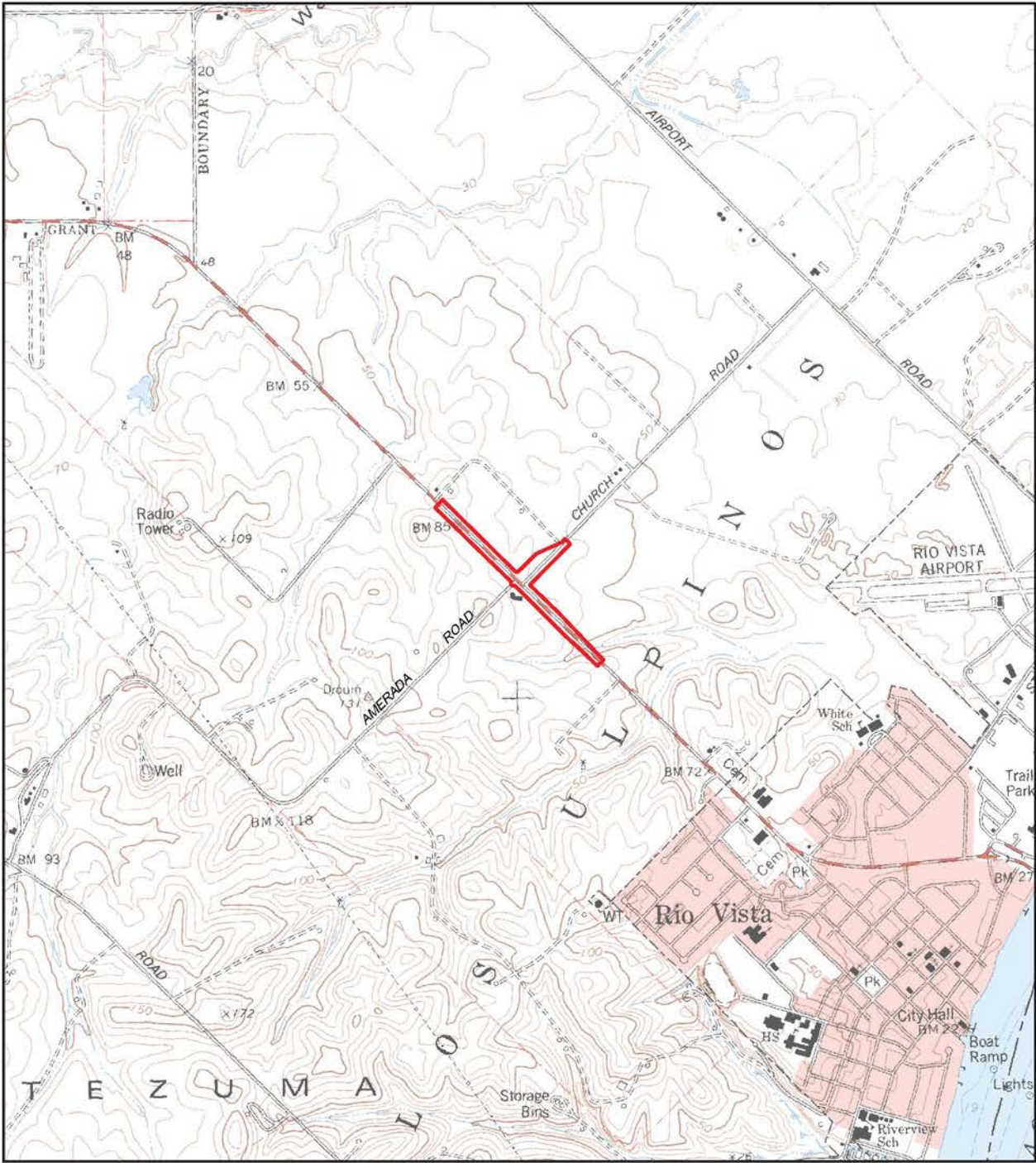
Note: The support cost ratio is 30 percent.

Project Background

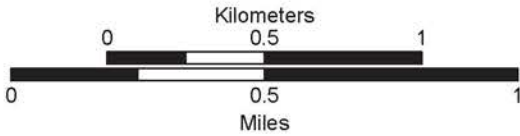
State Route 12 is a two-lane conventional highway that serves as the major east-west corridor between Napa, Sonoma, and Solano Counties and the San Joaquin Valley. The highway is also strategically located as the only east-west route connecting Solano County to the Sacramento and Stockton areas.

As shown on **Figure 1**, SR-12 is a west-east facility within the project limits. This portion of SR-12 is a two-lane conventional highway, composed of two 12-foot-wide travel lanes (one in each direction), and no shoulders. The highway has a 2-foot median with a rumble strip and delineators, all within a 62-foot-wide right of way. The existing posted speed limit along this portion of the SR-12 corridor is 50 miles per hour (mph) in the eastbound direction and 45 mph in the westbound direction.

The SR-12/ Church Road/Amerada Road intersection is located northwest of the downtown area of the City of Rio Vista at Post Mile 24.8. Church Road runs north of its intersection with SR-12 and connects to Airport Road. Amerada Road is a private road running south of its intersection with SR-12 and connects to Emigh Road. Amerada Road serves as access for only two users: a private residence at the southeast quadrant of SR-12 and the California Resources Corporation, an independent oil and gas company. Currently, Church Road and Amerada Road are offset approximately 75 feet from each other. A project location map is shown in **Figure 2**.



 Project Location



Project Location **Figure 2**

Land use adjacent to the intersection is agricultural, with one residence located on the southeast corner of the SR-12/Amerada Road intersection. The surrounding region is characterized by flat agricultural fields and occasional farm structures. While the SR-12 corridor is not a State-designated scenic highway, the segment of this corridor within the project limits is a locally-designated 'scenic roadway'. In addition, the agricultural landscapes and oak- and grass-covered hills visible within the project limits are considered some of the primary scenic resources within Solano County.

Neither the SR-12/Church Road nor SR-12/Amerada Road intersection currently provide separate left turn lanes for the intersection approaches. In addition, no right turn lanes or acceleration/deceleration lanes are provided at the intersections for the traffic exiting and entering SR-12. Along SR-12, there are existing channelizers and rumble strips installed in the median.

There are several utilities in the project area. An overhead telephone line along the east edge of Church Road intersects overhead electrical and telephone lines along the north edge of SR-12. An overhead telephone line crosses SR-12 towards the residence to the south. An underground gas line runs along the west edge of Church Road, crosses under SR-12 at the intersection, and continues along the west edge of Amerada Road. Frontier Communications indicates they own an underground cable located along the south edge of SR-12, and an underground cable that crosses SR-12 at the intersection and continues along the west edge of Church Road.

Project Description

The proposed improvements at the intersection of SR-12 and Church Road/Amerada Road would include the following major elements:

- One 12-foot-wide travel lane in each direction to be maintained on SR-12 and Church Road
- Adding a 12-foot-wide, 584-foot-long left-turn lane at the intersection approach associated with SR-12 eastbound
- Adding a 12-foot-wide, 310-foot-long deceleration lane and a 12-foot-wide, 720-foot-long acceleration lane along SR-12 in the westbound direction
- Adding a 12-foot-wide, 110-foot-long refuge area along westbound SR-12 opposite the SR-12 eastbound left turn lane to protect vehicles turning left from southbound Church Road
- Adding 8-foot-wide shoulders along SR-12 in both directions (for approximately 710 feet east of Church Road and for approximately 1,440 feet west of Church Road)
- Adding a 12-foot-wide, 206-foot-long right-turn lane on southbound Church Road at the intersection approach to SR-12
- Adding 4-foot-wide, approximately 476-foot-long shoulders along Church Road in both directions
- Relocating existing unlined ditches along the north and south sides of SR-12 (along approximately 2,030 feet south of SR12 on both sides of Church Road, and approximately 600 feet north of SR12 and east of Church Road)
- Relocating existing above ground utility poles and below ground buried cables

The highway would be widened along approximately 2,100 feet of SR-12, both north and south of the Church Road intersection. The highway would be widened approximately 32 feet to the north to accommodate the added shoulders, left turn lanes, and deceleration and acceleration lanes along westbound SR-12. The highway would be widened approximately 8 feet to the south to accommodate the added shoulders. No realignment of Church Road or Amerada Road would occur. Existing above-ground utility poles would be relocated outside of the clear recovery zone. Earthen ditches on both sides of SR-12 would be relocated, as would the Frontier Communications line. Project plans are included as **Appendix C**.

Shoulder improvements along the highway would require minor acquisitions of six properties fronting SR-12; four parcels on the south side of SR-14, and two parcels north of SR-12 (see **Table 2**). No residential or commercial displacements would occur.

Table 2 Partial Acquisitions

Assessor's Parcel Number	Total Parcel Size (Acre)	Partial Acquisition (Acre)	Percent of Total Property
0176-01-0620	24.4	1.33	0.054%
0178-01-0070	199.87	0.87	0.004%
0048-12-0580	325.48	0.12	0.0004%
0049-31-0020	38.48	0.11	0.003%
0049-31-0010	1.01	0.04	0.039 or 0.04%
0049-31-0300	188.34	0.14	0.0007%

Construction

Constructing the proposed roadway improvements would take approximately 12 months and consist of four steps:

- 1) Demolition and rough grading: proposed roadway improvements would involve excavation of up to three feet of material. Existing pavement would be removed to prepare the subgrade and to place pavement for widened turning lanes and shoulders.
- 2) Fine grading, including sub-grade preparation.
- 3) Relocation of existing utilities: earthen ditches and trench for the fiber optic line relocation would require excavation up to three feet in depth. Relocated utility poles would be set into drilled holes approximately one foot in diameter and six feet deep. The poles themselves would be approximately eight inches in diameter.
- 4) Surface improvements, including paving.

Anticipated construction equipment to perform the proposed activities includes excavators and concrete breakers, asphalt and concrete cutters, dump truck haulers, water trucks and street sweepers for dust control,

graders, compact rollers, backhoes, backfill tamping rollers, cement mix trucks, asphalt paving machines, asphalt rollers, and pavement striping equipment.

All construction staging could be accommodated within the proposed right-of-way (ROW) boundaries associated with SR-12 and Church Road. No temporary construction easements would be required. Temporary lane closures may be implemented to bring materials and equipment to the project site. Lane closures and traffic detours, if required, would be temporary.

Alternatives Considered but Eliminated from Further Discussion

Several other intersection configurations were investigated during the development of the project. The rejected alternatives are described in **Table 3**, along with the reasons for rejection.

Table 3 Rejected Alternatives

Alternative	Summary of Reasons for Rejection
2	Alternative 2 would realign Church Road and widen SR-12 mainly to the north. This alternative included acceleration/decelerations lanes and a left turn lane on westbound SR-12 to Amerada Road, a left turn to Church Road from eastbound SR-12, and a left turn from southbound Church Road to eastbound SR-12. These turning lanes would extend the project limits easterly and create a direct impact on a swale that is potentially Army Corps of Engineers jurisdictional wetlands. The swale is located approximately 1150 feet east of Church Road on the north side of SR-12. Since Amerada Road is a private road serving only two users and very few vehicles, there is a high cost associated with providing upgraded access to this road for little to no benefit for the general public. Thus Alternative 2 was rejected.
2A	Alternative 2A would realign Church Road and widen SR-12 symmetrically on both sides of the highway. This alternative included acceleration/decelerations lanes and a left turn lane on westbound SR-12 to Amerada Road, a left turn to Church Road from eastbound SR-12, and a left turn from southbound Church Road to eastbound SR-12. These turning lanes would extend the project limits easterly and create a direct impact on a swale located approximately 1150 feet east of Church Road on the north side of SR-12, which is potentially Army Corps of Engineers jurisdictional wetlands and can be avoided with either the Build alternative or Alternative 4. In addition, since Amerada Road is a private road serving only two users and very few vehicles, there is a high cost associated with providing upgraded access to this road for little to no benefit for the general public. The single family residence in the southeast corner of the intersection would be significantly impacted, requiring acquisition of about 25 feet of the front yard. For these reasons, Alternative 2A was rejected.
3	Alternative 3 would realign Amerada Road with symmetrical widening on SR-12 for a lane configuration identical to Alternative 2A. In order to align Amerada Road with Church Road, the single family residence in the southeast corner of the intersection would need to be relocated as the road would sever the dwelling. This Alternative requires a wider right of way and has potential community impacts that are avoidable with all other alternatives.

Alternative	Summary of Reasons for Rejection
	Alternative 3 was therefore rejected.
4	Alternative 4 is similar to Alternative 2 and would realign Church Road and widen SR-12 mainly to the north. This alternative included acceleration/deceleration lanes on westbound SR-12 for Church Road, a left turn lane to Church Road from eastbound SR-12, and left turn from southbound Church Road to eastbound SR-12. Unlike Alternatives 2, 2A and 3, no turn lanes would be provided to Amerada Road, and the swale east of the intersection would no longer be impacted. Alternatives 2, 2A and 4 require the realignment of Church Road which would require about one acre of additional right of way acquisition from the property in the northwest quadrant of the intersection. The parcel is currently agricultural and is planned for commercial development at some time in the distant future. Since Amerada Road is a private road serving only two users and very few vehicles, there is a high cost associated with realigning Church Road for little to no benefit for the general public. It is likely that Church Road would be extended south of SR-12 to provide access to new development in the future, hence replacing Amerada Road. Realignment of Church Road for Alternatives 2, 2A and 4 are inconsistent with the City of Rio Vista's General Plan. For this reason, and for the fact that this alternative requires acquisition of additional right of way along Church road, Alternative 4 was therefore rejected.

Planned Development

Future land uses planned in the vicinity of the project improvements are summarized in **Table 4** and include the Riverwalk development and the Marks-McCormack development. Neither development is anticipated to achieve formal approval by the City of Rio Vista within the next few years; however, the developments were considered reasonably foreseeable when assessing the potential cumulative effects of the project.

Table 4 Future Land Uses in the Project Vicinity

Planned Development Name	Location	Description of Proposed Development
Riverwalk Project	Northeast of SR-12/ Church Road	236-acre single- and multi-family residential, commercial and open space development. City Council certified the Final Environmental Impact Report (EIR) for this project in January 2007.
Marks-McCormack	Northwest of SR-12/ Church Road	25.7-acre retail/commercial development. An EIR was prepared for the project and certified by the City Council in April 1990.

CEQA Environmental Checklist

Dist.-Co.-Rte.

P.M/P.M.

E.A.

Project ID No.

04-SOL-12

PM 24.3/25.2

04-0G0500

0400000305

This checklist identifies the physical, biological, and social factors that might be affected by the proposed project. In many cases, background studies associated with the project determined that no impacts would occur. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included following the applicable section of the checklist. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. Aesthetics: Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project is located in a semi-rural area outside of the City of Rio Vista. This region is characterized by flat agricultural fields and occasional farm structures. While the SR-12 corridor is not a State-designated Scenic Highway, the segment of this corridor within the project limits is a locally-designated 'scenic roadway'.¹ In addition, the agricultural landscapes and oak- and grass-covered hills visible within the project limits are considered some of the primary scenic resources within the County.

In general, the project would not substantially impact the visual characteristic of the SR-12/Church Road intersection. The project would slightly expand an existing roadway, but would not create large infrastructure or elevated structures that would obstruct views in the area. The project would remove 25 trees along SR-12 to accommodate the proposed roadway widening and provide motorists with a clear recovery zone. However,

¹ Solano County General Plan, 2008. Scenic Roadways, Figure RS-5. Available at: http://www.riovistacity.com/images/Documents/chapter_10.pdf. Last accessed: March 4, 2016.

the intermittent trees along this segment of SR-12 are not a dominant feature of the landscape and do not substantially contribute to the area's visual quality. Roadway improvements would not interfere with existing views of the surrounding agricultural lands, which are considered scenic resources by the County. The project does not propose new structures or other improvements that would create a new source of light or glare.

Although the roadway improvements and associated tree removal would increase the dominance of the SR-12/Church Road intersection, the project would generally conform to the existing visual landscape of the highway corridor.

II. Agriculture and Forest Resources:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

According to the California Department of Conservation, agricultural land surrounding the project site is designated as 'Grazing Land', and is not considered 'Prime Farmland', 'Farmland of Statewide Importance', or 'Unique Farmland'.² There are no forest lands within the project limits. Partial property frontages from the surrounding agricultural properties and landscaped areas adjacent to SR-12 would be acquired to construct the project. These acquisitions would not affect the agricultural production aspects of the adjacent farmland.

² California Department of Conservation, 2014. Solano County Important Farmland Map 2014. Available at: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2014/sol14.pdf>.

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 to encourage the preservation of the State's agricultural lands and to prevent conversion from agricultural to urban uses. There are no Williamson Act contracts within the project vicinity.³

The project would improve an existing roadway and would not create new access that may result in additional conversion of agricultural lands. Furthermore, agricultural areas adjacent to the project site are planned for future residential and commercial development (see **Section 7, Planned Development**), and the project improvements are within the State and local rights-of-way assumed in the preliminary concepts for the future developments.

III. Air Quality:

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is listed in the 2015 Transportation Improvement Program (TIP) for the San Francisco Bay Area and the accompanying Air Quality Conformity Analysis adopted by the Metropolitan Transportation Commission (MTC) on September 24, 2014. Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approved MTC's TIP conformity determination on December 15, 2014. The proposed project (Project Reference Number 240745) and TIP (ID Number SOL150003) were included in the regional emissions analysis conducted by MTC for the Transportation 2040 Plan and the 2015 TIP. In addition, the proposed project was determined not to be a project of air quality concern by the MTC on February 26, 2016.⁴ Therefore, the project would not conflict with applicable air quality plans.

³ California Department of Conservation, Division of Land Resource Protection, 2013. Solano County Williamson Act FY 2013/2014. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Solano_13_14_WA.pdf.

⁴ Metropolitan Transportation Commission, 2016. Air Quality Conformity Task Force. P.M.2.5 Project Conformity Interagency Consultations.

The proposed project is an intersection channelization project within a rural highway corridor and would not generate an increase in traffic that would affect localized vehicle emissions. A project-level air quality analysis determined that the project would not violate an air quality standard or result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under Federal or State ambient air quality standards.

Construction of the proposed project would result in the emission of diesel exhaust from construction equipment and coarse particulate matter (PM₁₀) in the form of dust. Although grading and construction activities would be temporary, they would have the potential to cause health impacts. Implementation of feasible control measures (as specified in the Yolo-Solano Air Quality Management District [YSAQMD] *Handbook for Assessing and Mitigating Air Quality Impacts* [2007]) would minimize construction dust and equipment exhaust emissions, thereby reducing potential health risks. Caltrans special provisions and standard specifications would also include the requirement to minimize or eliminate dust through application of water or dust palliatives. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IV. Biological Resources: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) or state-protected wetlands, through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A Biological Study Area (BSA) was established to represent where temporary and/or permanent project improvements may directly or indirectly affect biological resources. Refer to **Appendix D** for a delineation of the BSA boundaries.

The BSA consists of five land cover types: planted wheat (11.32 acres); ruderal vegetation, or plant species such as wild oats and Italian thistle that are first to colonize disturbed lands (3.37 acres); landscaped (0.39 acres); road (2.71 acres); and a potentially jurisdictional swale (0.07 acre). No riparian habitat is located within the BSA. Special-status species are those species that are considered sufficiently rare that they require special consideration and/or protection and should be, or have been, listed as rare, threatened or endangered by the Federal and/or State governments.

Waters of the U.S.

No jurisdictional wetlands were documented within the BSA. There is an intermittent swale (0.07 acre) northeast of SR-12 at the southern end of the BSA, which may be considered a jurisdictional water of the U.S. The project would not impact this swale.

Trees

There are a total of 38 trees within the BSA. There is one non-native plane sycamore (*Plantanus acerifolia*) and 37 green ash (*Fraxinus pennsylvanica*), a widely planted non-native ornamental species. None of the trees within the BSA are protected by local tree protection policies. The project would remove 25 trees located in the clear recovery zone.

Plant Species

A literature review was conducted to investigate the potential presence of special-status plant species within the project vicinity. A regional list of special-status flora species was developed by querying the following databases

- The United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System
- The California Native Plant Society Inventory of Rare and Endangered Plants of California database
- California Natural Diversity Database
- The California Department of Fish and Wildlife (CDFW) Special Vascular Plants List
- Environmental documents for surrounding development projects and the Montezuma Hills Wind Resource Area

Based on literature reviews, database searches, and familiarity with the region, a total of 34 plant species were initially evaluated for the potential to occur within the project region. After reviewing vegetation information, habitat preferences, geographic distribution, elevation range, and known locations of all species on the preliminary list, two special-status plant species were determined to have low potential to occur in the BSA due to potentially suitable habitat: round-leaved filaree (*California macrophylla*) and fragrant fritillary (*Fritillaria liliacea*).

A special-status plant survey was conducted within the BSA in April 2015, and no special-status plants were observed. The existing ruderal and planted wheat land cover types do not typically provide habitat for these

plant species. Additionally, much of the ruderal vegetation within highway right-of-way is seasonally mowed and treated with herbicide. The BSA and swale habitat have a very low potential for these species to occur due to mowing, herbicide use, and the small extent of grassland along the edge of the roadway.

Animal Species

A literature review was conducted to investigate the potential presence of special-status animal species within the project vicinity. A regional list of special-status wildlife species was developed by querying the following databases:

- USFWS Information, Planning, and Conservation System
- The official National Marine Fisheries Service species list
- California Natural Diversity Database
- The CDFW Special Animals List
- Environmental documents for surrounding developments and the Montezuma Hills Wind Resource Area

Based on literature reviews, database searches, and familiarity with the region, a total of 65 wildlife species were initially considered to have potential to occur within the project region. After reviewing the habitat preferences, geographic distribution, elevation range, and known locations of all species on the initial list, 20 special-status animal species were determined to have the potential to occur in the BSA due to the presence of suitable habitat. Special-status species with low or no potential to occur are not considered in detail, with the exception of one Federal and State listed species (California tiger salamander [*Ambystoma californiense*]). In total, potential project impacts were evaluated against eleven special-status species, which are listed and discussed below.

- Swainson's hawk (*Buteo swainsoni*) – Listed as Threatened under the California Endangered Species Act
- Golden eagle (*Aquila chrysaetos*) – Covered under the Bald and Golden Eagle Protection Act, listed as fully protected by the CDFW
- White-tailed kite (*Elanus leucurus*) – listed as fully protected by the CDFW
- Tricolored blackbird (*Agelaius tricolor*) – Candidate for listing under the California Endangered Species Act, listed as a California Species of Special Concern
- Western burrowing owl (*Athene cunicularia hypugaea*) – Listed as a California Species of Special Concern
- Northern harrier (*Circus cyaneus*) – Listed as a California Species of Special Concern
- Loggerhead shrike (*Lanius ludovicianus*) – Listed as a California Species of Special Concern
- Silver-haired bat (*Lasionycteris noctivagans*) – Included on the CDFW Special Animals List
- Western red bat (*Lasiurus blossevillei*) – Listed as a California Species of Special Concern

- Hoary bat (*Lasiurus cinereus*) – Included on the CDFW Special Animals List
- California tiger salamander - Listed as Threatened under the federal Endangered Species Act, Listed as Threatened under the California Endangered Species Act

Impacts to Special-Status Animal Species

Swainson's hawk

Potential impacts to the Swainson's hawk include the loss of nesting and perching habitat through tree removal, and the loss of foraging habitat from the temporary and permanent disturbance of planted wheat fields and ruderal areas within the BSA. However, the quality and amount of disturbed nesting and foraging habitat is negligible relative to the amount of more optimal habitat in the surrounding landscape. Potential indirect effects to nesting birds may include construction noise and general construction activities (e.g., workers on foot, machinery movements and noise, nighttime work). Implementation of the avoidance and minimization measures for Swainson's hawk, including nesting bird surveys and non-disturbance buffers for nests (discussed below), would prevent the potential for direct disturbance to Swainson's hawk or their nests.

Western burrowing owl

Direct impacts to western burrowing owl could occur during construction activities associated with widening the existing shoulders of SR-12. Western burrowing owls are known to forage and nest along the open edges of roadways. Implementation of the proposed avoidance and minimization measures would reduce potential impacts to this special-status species during project construction.

Other impacts to western burrowing owl foraging habitat may result from the temporary and permanent disturbance of planted wheat fields and ruderal habitat within the BSA. However, potential impacts to habitat would be limited to a relatively small area in relationship to the amount of additional nesting and foraging habitat in the larger landscape immediately adjacent to the BSA.

Other special-status avian species

The proposed project could result in loss or disturbance of nesting habitat used by white-tailed kites, northern harriers, and loggerhead shrikes. However these species have a low potential to nest within the BSA. Potential nesting habitat for these special-status species would be impacted by the removal of the 25 ornamental trees along SR-12 within the clear recovery zone. However, impacts would be limited to a relatively small area in relationship to the amount of nesting habitat in the larger landscape immediately adjacent to the BSA.

The project could result in loss or disturbance of foraging habitat used by white-tailed kites, northern harriers, loggerhead shrikes, and tricolored blackbirds. Potential foraging habitat would be impacted by the temporary and permanent disturbance of planted wheat fields and ruderal areas within the BSA. However, impacts would be limited to a relatively small area in relationship to the amount of foraging habitat in the larger landscape immediately adjacent to the BSA.

The BSA does not provide suitable nesting habitat for the golden eagle. A golden eagle was reportedly seen during biological surveys of the Montezuma Hills Wind Resource Area, and may occasionally forage in the BSA. However, the reduction in the potential low-quality eagle foraging habitat in the BSA resulting from the project

would be limited to a negligibly small area in relationship to the amount of known eagle foraging habitat in the larger landscape associated with the Montezuma Hills. The project would, therefore, have no effect on golden eagles.

Construction activities may result in impacts to special-status avian species. However, given the short construction duration and high amount of disturbance from existing traffic on SR-12, these impacts are expected to be negligible. In addition, implementation of the proposed avoidance and minimization measures would further reduce the potential for impacts to these avian species during project construction.

Special-status bat species

Tree removals associated with the project could result in loss or disturbance of nesting habitat used by Silver-haired bats, western red bats, and hoary bats. Given the marginal suitability of trees along SR-12 as roosting habitat and the location of more suitable roosting habitat immediately adjacent to the BSA, no impacts to roosting habitat are anticipated.

Silver-haired bats, western red bats, and hoary bats foraging within the BSA may be directly affected by noise, light, and visual disturbances associated with any construction activities occurring at night. These impacts are expected to be short in duration and negligible when compared to the amount of available foraging habitat immediately surrounding the BSA. In addition, implementation of the proposed avoidance and minimization measures would reduce potential impacts to these special-status species during project construction.

California tiger salamander

The probability of California tiger salamander occurrences within the BSA is very low. There are several factors contributing to this conclusion, including the lack of known occurrences within their known dispersal distance (which extends 1.24 miles from breeding habitat); lack of suitable habitat within the BSA; the degradation of suitable habitat in the BSA and in the Montezuma Hills (which harbor the nearest known population of California tiger salamanders); and the presence of major dispersal barriers between the BSA, the population in the Montezuma Hills, and other core population areas within Solano County.

On April 11, 2016, a letter was submitted to the USFWS requesting concurrence on the Caltrans' determination that no adverse impacts to the California tiger salamander would occur. On July 13, 2016, the USFWS concurred with the determination that the project is not likely to adversely affect the California tiger salamander, as the effects are likely to be discountable. This Letter of Concurrence is included as **Appendix E**.

Avoidance and Minimization Measures

To avoid and minimize impacts to special-status species and their habitats within the project limits, Caltrans would implement the following avoidance and minimization measures. Under the proposed project, there are no project impacts that would require compensatory mitigation or non-standard avoidance measures. The measures listed below are considered standard specifications that would be incorporated into the construction contract.

1. **Biological Monitoring.** An agency-approved biologist(s) will be on-site during initial ground-disturbing activities, and thereafter as needed to fulfill the role of the approved biologist as specified in these measures. Through the Resident Engineer or their designee, the approved biologist(s) will be given the

authority to communicate either verbally, by telephone, electronic mail or hardcopy with all project personnel to ensure that the risk of take to listed species is minimized. Through the Resident Engineer or their designee, the approved biologist(s) will have the authority to stop project activities to minimize take of listed species.

2. **Worker Environmental Awareness Training.** Prior to working on the project, all construction personnel will attend a mandatory environmental education program delivered by an approved biologist. At a minimum the training will include a description of California tiger salamander and other listed species, migratory birds and their habitats. The training will also discuss the potential occurrence of these species within the action area; an explanation of the status of these species and protection under the Act and other laws; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur.
3. **Pre-construction Surveys.** Prior to any ground disturbance, pre-construction surveys for wildlife species will be conducted by an approved biologist. These surveys will consist of walking surveys of the project limits and, if possible, accessible adjacent areas within at least 50 feet of the project limits. The biologist(s) will investigate all potential cover sites. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the project limits will be documented and relocated to an adequate cover site in the vicinity.
4. **Listed Species On Site.** The Resident Engineer will immediately contact the agency-approved project biologist(s) if listed species are observed within a construction zone. The Resident Engineer will suspend construction activities and regulatory agencies will be contacted. Caltrans will initiate formal consultation with the USFWS if the California tiger salamander is encountered within the action area.
5. **Surveys for Swainson's hawk.** Pre-construction surveys will be completed with the express purpose of identifying any potential nesting by Swainson's hawk within 0.5 mile of the project area. Implementation of these surveys will be consistent with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* produced in 2000 by the Swainson's Hawk Technical Advisory Committee.⁵
6. **Surveys for Burrowing Owls.** Pre-construction surveys will be completed within 15 days prior to the start of construction activities, with the express purpose of identifying any potential nesting by burrowing owls within 300 feet of the project area. Implementation of these surveys will be consistent with the guidelines outlined in Appendix D of CDFW's *Staff Report on Burrowing Owl Mitigation*.⁶

5 Swainson's Hawk Technical Advisory Committee (SHTAC). 2000). Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley.

6 California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. Natural Resource Agency. Department of Fish and Wildlife. March 7, 2012. Available at https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html

7. **Prevention of Wildlife Entrapment.** To prevent inadvertent entrapment of wildlife species during construction, excavated holes or trenches more than one foot deep with walls steeper than 30 degrees will be covered at the close of each working day by plywood or similar materials. Alternatively, an additional four-foot high vertical barrier, independent of exclusionary fences, will be used to further prevent the inadvertent entrapment of wildlife species. If it is not feasible to cover an excavation or provide an additional four-foot high vertical barrier, independent of exclusionary fences, one or more escape ramps constructed of earth fill or wooden planks will be installed. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, the on-site biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape. If the animal is a listed species, the CDFW or USFWS will be contacted by telephone for guidance.
8. **Work Window for Nesting Birds.** To the extent practicable, clearing and grubbing activities and any tree removal will be conducted during the non-nesting season, from September 1 to February 14.
9. **Pre-construction Surveys for Nesting Birds.** Pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than 72 hours prior to the start of construction for activities.
10. **Non-Disturbance Buffer for Nesting Swainson's Hawks and Burrowing Owls.** If an active Swainson's hawk nest or burrowing owl nest is identified during the construction period a non-disturbance buffer will be established in coordination with CDFW. The non-disturbance nest buffer will be a distance sufficient to minimize disturbance based on the nest location, topography, cover, the apparent level of habituation to disturbance, and the intensity/type of potential work activities. This buffer will be at least 300 feet.
11. **Non-Disturbance Buffer for Nesting Birds.** If active nests are observed, a non-disturbance buffer will be established by the Biological Monitor in coordination with CDFW. The non-disturbance buffers will be, at a minimum, 300 feet for active raptor nests or 50 feet for active non-raptor nests, but may, through consultation with CDFW, be reduced based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential work activities.
12. **Vehicle Use.** Project employees will be required to comply with guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.
13. **Night Work.** To the extent practicable, nighttime construction will be minimized.
14. **Night Lighting.** Artificial lighting of the project site during nighttime hours will be minimized and directed away from non-paved surfaces to the maximum extent practicable.
15. **Trash Control.** All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the work area.
16. **Firearms.** No firearms will be allowed in the project area except for those carried by authorized security personnel, or local, State, or federal law enforcement officials.
17. **Pets.** To prevent harassment, injury or mortality of sensitive species, no pets will be permitted on the project site.
18. **Caltrans Standard Best Management Practices (BMPs).** The potential for adverse impacts to water quality will be avoided by implementing temporary and permanent BMPs outlined in Section 7-1.01G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind or

water-related erosion. The State Water Resources Control Board (SWRCB) has issued a National Pollution Discharge Elimination System (NPDES) Statewide Storm Water Permit to Caltrans to regulate stormwater and non-stormwater discharges from Caltrans facilities. A Storm Water Pollution Prevention Plan (SWPPP) will be developed for the project, as one is required for all projects that have at least 1.0 acre of soil disturbance. The SWPPP complies with the Caltrans Storm Water Management Plan (SWMP). The SWMP includes guidance for Design staff to include provisions in construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.

19. The SWPPP will reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges and can be found at the following website: <http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>
20. Protective measures will be included in the contract, including, at a minimum:
 - a. No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses.
 - b. Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses.
 - c. Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses.
 - d. Dust control will be implemented, including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require.
 - e. Coir rolls will be installed along or at the base of slopes during construction to capture sediment and temporary organic hydro-mulching will be applied to all unfinished disturbed and graded areas.
 - f. Work areas where temporary disturbance has removed the pre-existing vegetation will be re-seeded with a native seed mix.
 - g. Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.
 - h. A Revegetation Plan will be prepared for restoration of temporary work areas. Pavement and base will be removed; topography blended with the surrounding area; and topsoil will be salvaged from the new alignment area to be placed over the restored area, which will then be revegetated with native grassland species. Invasive, exotic plants will be controlled within the project site to the maximum extent practicable, pursuant to Executive Order 13112.
21. **Monofilament Erosion Control.** As per Caltrans standards, plastic mono-filament netting (erosion control matting) or similar material will not be used for the project because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

Solano Multispecies Habitat Conservation Plan

The proposed project is located within the City of Rio Vista, which will voluntarily participate in the Solano Multispecies Habitat Conservation Plan (Solano HCP). However, the Solano HCP is currently undergoing

environmental review, and will not be adopted before the approval of this project. Therefore, the project would not conflict with any adopted habitat conservation plans.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
V. Cultural Resources: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Cultural Resources

There are no documented cultural resources within the project limits. The only structure within the immediate area is the single-family residence located on the southeast corner of SR-12 and Amerada Road. This residence was evaluated and determined to be ineligible for listing on the California Register of Historical Resources or the National Register of Historic Places.

Results of a Buried Site Sensitivity Analysis identified the project site as having low- to very-low sensitivity for undocumented buried archaeological resources. However, if materials with archaeological value are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that construction activities shall stop in any area or nearby area suspected to overlie human remains, and the County Coroner shall be contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact Caltrans Professionally Qualified Staff (PQS) Archaeologist so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 would be followed as applicable.

Paleontological Resources

There are no known paleontological resources within the project limits. According to the Paleontological Identification/Evaluation Report prepared for the project, there is low potential to discover paleontological resources within the top three feet of soil during project grading and excavation. Excavations exceeding three feet in depth have potential to encounter unidentified paleontological resources due to the aged nature of the deeper alluvium soils.

The proposed roadway improvements would involve excavation of up to three feet within previously disturbed soils. As such, the project does not propose excavations at depths that would encounter potentially fossil-bearing soils. Relocation of utility poles would involve drilled holes to depths of six feet that could potentially reach fossil-bearing soils; however, due to the nature of construction, any fossil fragments brought to the surface would lack context, depth/elevation, formation identification, and other elements that are scientifically significant. Therefore, the recovery options for paleontological specimens would be low.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VI. Geology and Soils: Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as it may be revised), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project contains no components which would contribute to soil or slope instability. All slopes would be stabilized using Caltrans erosion-control BMPs. The project is an intersection channelization project, and thus would not expose people or structures to adverse geological effects.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VII. Greenhouse Gas Emissions: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans			

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 has led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation.⁷ In California, however, transportation sources (including passenger cars, light-duty trucks, other trucks, buses, and motorcycles make up the largest source of GHG-emitting sources.⁸ The dominant GHG emitted is CO₂, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change: "Greenhouse Gas Mitigation" and "Adaptation." "Greenhouse Gas Mitigation" is a term for reducing GHG emissions to reduce or "mitigate" the impacts of climate change. "Adaptation" refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels).⁹

⁷ Environmental Protection Agency. 2016. U.S. Greenhouse Gas Inventory Report: 1990-2014. Available at: <https://www.epa.gov/ghgemissions/us-greenhouse-gas-inventory-report-1990-2014>. Last accessed: November 2, 2016.

⁸ California Environmental Protection Agency Air Resources Board. 2016. California Greenhouse Gas Emission Inventory - 2016 Edition. Available at: <https://www.arb.ca.gov/cc/inventory/data/data.htm>. Last accessed: November 2, 2016.

⁹ American Association of State Highway and Transportation Officials. GHG Mitigation. Available at: http://climatechange.transportation.org/ghg_mitigation/. Last accessed: November 2, 2016.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing travel activity), 3) transitioning to lower GHG-emitting fuels, and 4) improving vehicle technologies/efficiency. To be most effective all four strategies should be pursued cooperatively.¹⁰

Regulatory Setting

This section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California has been innovative and pro-active in addressing GHG emissions and climate change.

Assembly Bill 1493 (AB 1493), Pavley, Vehicular Emissions: Greenhouse Gases, 2002: This bill requires the California Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year.

Executive Order S-3-05 (EO) (June 1, 2005): The goal of this EO is to reduce California's GHG emissions to: 1) year 2000 levels by 2010, 2) year 1990 levels by the 2020, and 3) 80 percent below the year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill 32 in 2006 and SB32 in 2016.

Assembly Bill 32 (AB 32), Chapter 488, 2006 Núñez and Pavley, The Global Warming Solutions Act of 2006: AB 32 codified the 2020 GHG emissions reduction goals as outlined in EO S-3-05, while further mandating that ARB create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020 (Health and Safety Code Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Executive Order S-20-06 (October 18, 2006): This order establishes the responsibilities and roles of the Secretary of the California Environmental Protection Agency (Cal/EPA) and state agencies with regard to climate change.

Executive Order S-01-07 (January 18, 2007): This order set forth the low carbon fuel standard for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least ten percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went

¹⁰ United States Department of Transportation, Federal highway Administration, 2016. Greenhouse Gas Mitigation & Energy. Available at: http://www.fhwa.dot.gov/environment/climate_change/mitigation/. Last accessed: November 2, 2016.

into effect on January 1, 2016. The program establishes a strong framework to promote the low carbon fuel adoption necessary to achieve the Governor's 2030 and 2050 greenhouse gas reduction goals.

Senate Bill 97 (SB 97) Chapter 185, 2007, Greenhouse Gas Emissions: required the Governor's Office of Planning and Research (OPR) to develop recommended amendments to the California Environmental Quality Act (CEQA) Guidelines for addressing GHG emissions. The amendments became effective on March 18, 2010.

Senate Bill 375 (SB 375), Chapter 728, 2008, Sustainable Communities and Climate Protection: This bill requires ARB to set regional emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan for the achievement of the emissions target for their region.

Senate Bill 391 (SB 391) Chapter 585, 2009 California Transportation Plan: This bill requires the State's long-range transportation plan to meet California's climate change goals under AB 32.

Executive Order B-16-12 (March 2012) orders State entities under the direction of the Governor including ARB, the Energy Commission, and Public Utilities Commission to support the rapid commercialization of zero emission vehicles. It directs these entities to achieve various benchmarks related to zero emission vehicles,

Executive Order B-30-15 (April 2015), establishes an interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. It further orders that all state agencies with jurisdiction over sources of greenhouse gas emissions to implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMTCO_{2e}). Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, Safeguarding California, every three years, and to ensure that its provisions are fully implemented.

Senate Bill 32 (SB32) Chapter 249, 2016, this legislation codifies the greenhouse gas reduction targets to achieve a mid-range goal of 40 percent below 1990 levels by 2030 established in EO B-30-15.

Federal

Although climate change and GHG reduction are a concern at the federal level; to date no national standards have been established for nationwide mobile source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Council on Environmental Quality (CEQ) released final guidance (Aug1, 2016) for Federal agencies on how to consider the impacts of their actions on global climate change in their National Environmental Policy Act (NEPA) reviews. This final guidance provides a framework for agencies to consider both the effects of a

proposed action on climate change, as indicated by its estimated greenhouse gas emissions, and the effects of climate change on a proposed action. The final guidance applies to all types of proposed Federal agency actions that are subject to NEPA analysis and guides agencies on how to address the greenhouse gas emissions from Federal actions and the effects of climate change on their proposed actions within the existing NEPA regulatory framework.

FHWA supports the approach that climate change considerations should be integrated throughout the transportation decision-making process, from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will assist in decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project-level decision-making. Climate change considerations can be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life. The four strategies outlined by FHWA to lessen climate change impacts correlate with efforts that the state is undertaking to deal with transportation and climate change; these strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and a reduction in travel activity.

Climate change and its associated effects are being addressed through various efforts at the federal level to improve fuel economy and energy efficiency.

The Energy Policy Act of 1992 (102nd Congress H.R.776.ENR, abbreviated as EPACT92) was passed by Congress and set goals, created mandates, and amended utility laws to increase clean energy use and improve overall energy efficiency in the United States. The Act consists of twenty-seven titles detailing various measures designed to lessen the nation's dependence on imported energy, provide incentives for clean and renewable energy, and promote energy conservation in buildings. Title III of EPACT92 addresses alternative fuels. It gave the U.S. Department of Energy administrative power to regulate the minimum number of light duty alternative fuel vehicles required in certain federal fleets beginning in fiscal year 1993. The primary goal of the Program is to cut petroleum use in the United States by 2.5 billion gallons per year by 2020

Energy Policy Act of 2005(109th Congress H.R.6 (2005-2006) Sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Indian energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

Energy Policy and Conservation Act of 1975 and Corporate Average Fuel Standards

The Energy Policy and Conservation Act of 1975 (42 USC Section 6201 [1975]) establishes fuel economy standards for on-road motor vehicles sold in the United States.

Compliance with federal fuel economy standards is determined through the Corporate Average Fuel Economy (CAFE) program on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance 74 *Federal Register* 52117 (October 8, 2009). The Executive Order set sustainability goals for federal agencies and focuses on making improvements in their environmental, energy, and economic performance. Instituted policy of the

United States that Federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities.

Executive Order 13653 *Preparing the United States for the Impacts of Climate Change* (78 Federal Register 66817, November 6, 2013) Builds on a previously released (and since revoked) EO 13514 Federal Leadership in Environmental Energy, and Economics Performance to establish direction for federal agencies on how to improve on climate preparedness and resilience strategies.

President Obama's Climate Action Plan June 2013, President Obama announced a comprehensive plan for action to cut carbon pollution, prepare the Nation for the impacts of climate change, and lead international efforts to address climate change as a global challenge. The Plan builds on the work of the 13 USGCRP member agencies, the USGCRP National Climate Assessment program, and the Interagency Climate Change Adaptation Task Force.

Executive Order 13693 *Planning for Federal Sustainability* (80 Federal Register 15869, March 2015). This Executive Order (1) reaffirms the policy of the United States that Federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities; (2) sets sustainability goals for all agencies to promote energy conservation, efficiency, and management while by reducing energy consumption and GHG emissions, and (3) builds on the adaptation and resiliency goals in EO 13693 to ensure agency operations and facilities prepare for impacts of climate change.

U.S. EPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six greenhouse gases constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and EPA's assessment of the scientific evidence that form the basis for EPA's regulatory actions.

U.S. EPA in conjunction with NHTSA issued the first of a series of GHG emission standards for new cars and light-duty vehicles in April 2010 and significantly increased the fuel economy of all new passenger cars and light trucks sold in the United States. The standards set a requirement to meet an average fuel economy of 34.1 miles per gallon by 2016. In August 2012, the federal government adopted the second rule that increases fuel economy for the fleet of passenger cars, light-duty trucks, and medium-duty passenger vehicles for model years 2017 and beyond to average fuel economy of 54.5 miles per gallon by 2025. Because NHTSA cannot set standards beyond model year 2021 due to statutory obligations and the rules' long timeframe, a mid-term evaluation is included in the rule. The Mid-Term Evaluation is the overarching process by which NHTSA, EPA, and ARB will decide on CAFE and GHG emissions standard stringency for model years 2022-2025. Standards for model years 2022 through 2025 have not been formally adopted by NHTSA.

NHTSA and EPA issued a Final Rule for "Phase 2" for medium and heavy duty vehicles to improve fuel efficiency and cut carbon pollution. The agencies estimate that the standards will save up to 2 billion barrels of oil and reduce CO2 emissions by up to 1.1 billion metric tons over the lifetimes of model years 2018-2029 vehicles.

Environmental Setting

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)]¹¹, which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated every five years. The First Update to the Climate Change Scoping Plan was approved by the Board on May 22, 2014.¹² ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target established in Executive Order B-30-15 and Senate Bill 32 (SB32).

The AB 32 Scoping Plan and the subsequent update contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California (Forecast last updated: March 24, 2014). The forecast is an estimate of the emissions anticipated to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented.

An emission projection estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. The projected 2020 emissions provided below represents a Business-as-Usual (BAU) scenario assuming none of the Scoping Plan measures are implemented. The 2020 BAU emissions estimate assists ARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO₂e.¹³

The 2020 BAU emissions projection was revisited in support of the First Update to the Scoping Plan (2014). This projection accounts for updates to the economic forecasts of fuel and energy demand as well as other factors. It also accounts for the effects of the recent economic recession and the projected recovery. The total emissions expected in the 2020 BAU scenario includes reductions anticipated from Pavley I and the Renewable Electricity Standard (30 MMTCO₂e total). With these reductions in the baseline, estimated 2020 statewide BAU emissions are 509 MMTCO₂e.

¹¹ California Environmental Protection Agency Air Resources Board. 2014. Assembly Bill 32 Overview. Available at: <https://www.arb.ca.gov/cc/ab32/ab32.htm>. Last accessed: November 2, 2016.

¹² California Environmental Protection Agency Air Resources Board. 2014. First Update to the AB 32 Scoping Plan. Available at: <https://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>. Last accessed: November 2, 2016.

¹³ the revised target using Global Warming Potentials (GWP) from the IPCC Forth Assessment Report (AR4)

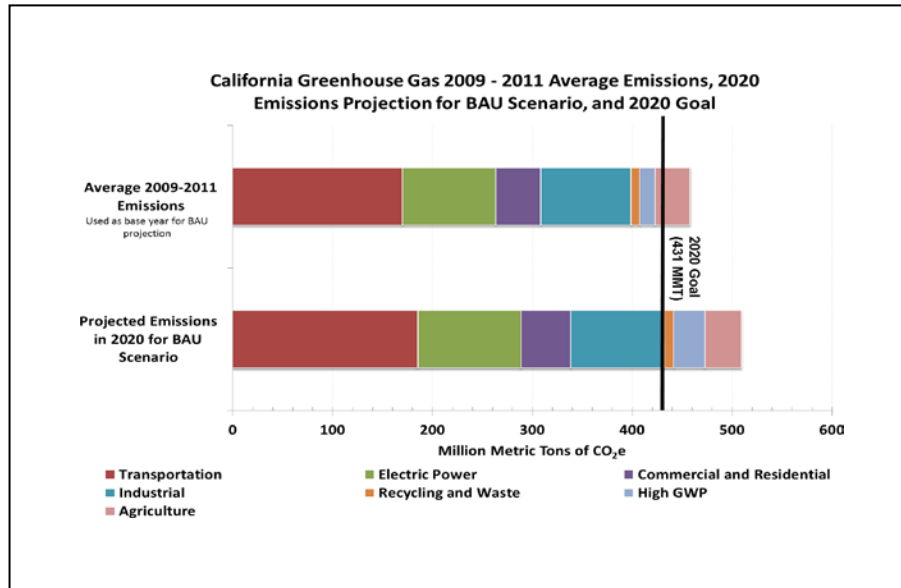


Figure 3 - 2020 Business as Usual (BAU) Emissions Projection 2014 Edition

Project Analysis

The purpose of this project is to enhance operation and safety characteristics at the intersection of SR-12 and Church Road by removing turn movements from the through traffic with the addition of a left turn lane, and providing acceleration/deceleration lanes for right turns. As the project is not anticipated to result in an increase in vehicle capacity, the operation of this project would result in low-to-no potential for an increase in operational GHG emissions

Construction Emissions

GHG emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by on-site construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events. Currently, neither Caltrans nor YSAQMD have adopted GHG significance thresholds that apply to construction projects. For informational purposes, GHG emissions from project construction are estimated to be 612 metric tons of CO₂ over the course of the entire construction project.

Greenhouse Gas Reduction Strategies

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32.

Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high-density housing along transit corridors. Caltrans works closely with local jurisdictions on planning activities, but does not have local land use planning authority. Caltrans assists efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks; Caltrans is doing this by supporting ongoing research efforts at universities, by supporting legislative efforts to increase fuel economy, and by participating on the Climate Action Team. It is important to note, however, that control of fuel economy standards is held by the U.S. EPA and ARB.

Caltrans is also working towards enhancing the State's transportation planning process to respond to future challenges. Similar to requirements for regional transportation plans under Senate Bill (SB) 375, SB 391 require the State's long-range transportation plan to meet California's climate change goals under AB 32.

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system.

The purpose of the CTP is to provide a common policy framework that will guide transportation investments and decisions by all levels of government, the private sector, and other transportation stakeholders. Through this policy framework, the CTP 2040 will identify the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the State's transportation needs.

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities.

Caltrans Activities to Address Climate Change (April 2013) provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

The following measures will also be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

1. Caltrans Standard Specification 14-9.01, Standard Specification 10, and Standard Specification 18, which address the requirements of the local air pollution control district. In addition, the YSAQMD CEQA Guidelines provides the following feasible control measures for construction emissions (see Section III, Air Quality):
2. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. Implementation of idling restrictions during construction will reduce temporary greenhouse gas emissions from this project.

Adaptation Strategies

"Adaptation strategies" refer to how Caltrans and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is

expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

At the federal level, the Climate Change Adaptation Task Force, co-chaired by the White House Council on Environmental Quality (CEQ), the Office of Science and Technology Policy (OSTP), and the National Oceanic and Atmospheric Administration (NOAA), released its interagency task force progress report on October 28, 2011¹⁴, outlining the federal government's progress in expanding and strengthening the Nation's capacity to better understand, prepare for, and respond to extreme events and other climate change impacts. The report provides an update on actions in key areas of federal adaptation, including: building resilience in local communities, safeguarding critical natural resources such as freshwater, and providing accessible climate information and tools to help decision-makers manage climate risks .

Climate change adaptation must also involve the natural environment as well. Efforts are underway on a statewide-level to develop strategies to cope with impacts to habitat and biodiversity through planning and conservation. The results of these efforts will help California agencies plan and implement mitigation strategies for programs and projects.

On November 14, 2008, then-Governor Arnold Schwarzenegger signed EO S-13-08, which directed a number of state agencies to address California's vulnerability to sea level rise caused by climate change. This EO set in motion several agencies and actions to address the concern of sea level rise.

All state agencies that are planning to construct projects in areas vulnerable to future sea level rise are directed to consider a range of sea level rise scenarios for the years 2050 and 2100 to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. Sea level rise estimates should also be used in conjunction with information on local uplift and subsidence, coastal erosion rates, predicted higher high water levels, storm surge and storm wave data

Although the proposed project is outside the coastal zone, the Cal Adapt website was reviewed for potential impacts to the surrounding Delta area for potential inundation potentially exacerbated by projected future sea level rise. Direct impacts to transportation facilities due to projected sea level rise are not expected.

Currently, Caltrans is working to assess which transportation facilities are at greatest risk from climate change effects. However, without statewide planning scenarios for relative sea level rise and other climate change

¹⁴ Council on Environmental Quality. Climate Change Resilience. Available at: <http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>. Last accessed November 3, 2016.

effects, Caltrans has not been able to determine what change, if any, may be made to its design standards for its transportation facilities. Once statewide planning scenarios become available, Caltrans will be able review its current design standards to determine what changes, if any, may be needed to protect the transportation system from sea level rise.

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system from increased precipitation and flooding; the increased frequency and intensity of storms and wildfires; rising temperatures; and rising sea levels. Caltrans is an active participant in the efforts being conducted in response to EO S-13-08 and is mobilizing to be able to respond to the National Academy of Science Sea Level Rise Assessment Report.

VIII. Hazards and Hazardous Materials:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A search of environmental regulator databases (e.g. GeoTracker) did not identify any known hazardous waste sites that could affect the project location.

A preliminary site investigation for the project found that lead levels in shallow soils range from less than 12 milligrams per kilogram (mg/kg) up to 160 mg/kg. In addition, the investigation found that arsenic concentrations in the soils range from 2.5 to 6.0 mg/kg, which exceed the various arsenic thresholds defined

by Bay Area Regional Water Quality Control Board's (RWQCB) environmental screening levels (ESL); however, naturally occurring arsenic levels in San Francisco Bay Area soils typically exceed the arsenic ESLs, and are known to be as high as 20 mg/kg. The arsenic concentrations reported in the preliminary site investigation appear to represent typical background levels. Remediation of naturally occurring chemicals to levels below background concentrations is typically not required. Other contaminants of potential concern (pesticides, diesel, motor oil) were found in the site soils at concentrations below their respective ESLs.

The proposed project involves limited excavation activities. Additional site investigation work based on specific design details will be planned and conducted during the project development process to define the contamination profile of the soils that will be excavated by the construction work. The resulting site investigation report will discuss how the contamination, in particular the lead contamination, fits with the regulatory limits and requirements established for Caltrans by the Department of Toxic Substance Control's Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils.¹⁵ Adherence to the requirements of the ADL agreement, as dictated in the project specifications, will ensure that excavated soils are properly handled and disposed of in a way that would not create a significant hazard to the public or the environment.

The proposed project would improve operations at the SR-12/Church Road intersection; therefore, there would be no permanent impact to emergency vehicles' access, an emergency response plan, or an emergency evacuation route. Short-term effects associated with lane closures, detours, and construction activities would be avoided and/or minimized through preparation and implementation of a standard Transportation Management Plan (TMP). Caltrans will notify affected police and emergency service providers at least one week in advance of any lane or roadway closures or impacts related to access. With implementation of standard TMP measures, the project would not result in construction-period effects to police and emergency service providers.

The Rio Vista Municipal Airport is located approximately 1.2 miles north of the SR-12/Church Road intersection. Project construction and operation would not interfere with this airport. The proposed project is not within 0.25 miles of a school, and there are no private airstrips nearby.

¹⁵ Department Of Toxic Substances Control. Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils. 2016. Available at http://www.dot.ca.gov/hq/env/haz/pdfs/adl/dtsc_ct_adlfinal_063016.pdf. Last Accessed November 22, 2016.

IX. Hydrology and Water Quality:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation of seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Project construction could potentially cause erosion. In addition, the operation of roadways results in the discharge of contaminants to the environment that can be transported away from the roadway by stormwater runoff. Though implementation of the project would increase impervious surfaces at the project site by 1.7 acres, this small amount of new impervious surface would generate a negligible increase in stormwater runoff.

The SWRCB has issued a statewide Construction General Permit for all construction activities disturbing over 1.0 acre of soil. All projects subject to the Construction General Permit require a SWPPP to reduce the potential for adverse effects of erosion and sedimentation. As the project would disturb approximately 2.6 acres of soil, it must comply with provisions of the Construction General Permit and will prepare a SWPPP. The SWPPP will identify potential pollutant sources that may affect the quality of the runoff and identify, construct, and implement BMPs to reduce pollutants in stormwater discharges from the construction site.

Stormwater is also managed under a NPDES permit, which, in conjunction with the Caltrans Storm Water Management Plan (SWMP), would address water quality issues both during and after construction. Treatment for increased runoff would be provided by the proposed Design Pollution Prevention BMPs, including

biofiltration strips and/or swales¹⁶, which are proposed as a component of the project. Caltrans' standard construction BMPs would further reduce potential impacts to hydrology and water quality.

A review of relevant Federal Emergency Management Agency (FEMA) Flood Zone Maps indicates that the proposed project site is not within a 100 year floodplain or special flood zone, and thus would not place structures or people within a flood-hazard area. The Flood Zone Map associated with the project site is included as **Appendix F**.

X. Land Use and Planning:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

All project improvements would occur on, or immediately adjacent to, the existing SR-12/Church Road intersection. No new physical or perceptual barriers would be created that could potentially divide an established community. None of the proposed property acquisitions are located where there are existing structures or improvements, and no residential or business relocations would occur.

The *Rio Vista General Plan 2001* land use policies focus on the City of Rio Vista's Planning Area, as defined in the Planning Constraints & Boundaries Element. Within the overall Planning Area, six distinct sub-planning areas were derived from examining the location and range of existing and potential uses, and the unique characteristics of various portions of the overall planning area. Sub-Planning Area 2—Esperson Property, River Walk, and Homecoming Neighborhood; and Sub-Planning Area 4— Northwest Area Neighborhoods are adjacent to the project limits. Each of the sub-planning areas include the planned developments listed in **Section 7, Planned Development** of this document. The project would not preclude the foreseeable residential and commercial land uses associated with the future Riverwalk and Marks-McCormack developments, and is therefore consistent with existing and future local land use planning. Therefore, the project would not conflict with local land use plans.

¹⁶ Biofiltration Swales/Strips are vegetated channels that receive, filter, and convey stormwater flows. Pollutants including litter, soil, and metal particulates are removed from stormwater by filtration through the vegetation, uptake by plant biomass, sedimentation, and adsorption/infiltration through the soil.

Caltrans has programmed an SR-12 Resurfacing, Restoration and Rehabilitation project in the 2016 SHOPP. Segment 2 of the SHOPP project proposes widening SR-12 from Summerset Road to the Solano County line, constructing shoulders, repairing pavement and improving nonstandard vertical curvature where feasible. The SR-12/Church Road project is within the limits of the SHOPP project, and is consistent with regional planning efforts.

The project site is not currently within an adopted habitat conservation plan or natural community conservation plan.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XI. Mineral Resources: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

According to the *Solano County General Plan*, the project site is not located within a Mineral Resource Zone.¹⁷

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XII. Noise: Would the project:				
a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne vibration levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

¹⁷ Solano County General Plan, 2008. Mineral Resources, Figure RS-4. Available at: <https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=6494>. Last accessed: March 7, 2016.

A Mineral Resource Zone is an area where existing mineral deposits are known to occur, where adequate information indicates that significant material deposits are present, or where it is judged that a high likelihood for their presence exists.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project would improve operations at the SR-12/Church Road intersection without directly increasing traffic levels. As such, it would not permanently increase noise levels at the project site. Construction noise would be temporary and would be within acceptable levels for construction activity as specified by local plans.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIII. Population and Housing: Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No new growth would be generated with project implementation. Land acquisitions associated with the project are all partial property frontages, and there would be no displacement of current residents.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV. Public Services: Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project would not induce population growth in the area, and no increased demands for public services would occur.

The proposed project would improve operations at the SR-12/Church Road intersection; therefore, there would be no permanent impact to emergency vehicles' access, an emergency response plan, or an emergency evacuation route. Short-term effects associated with lane closures, detours, and construction activities would be avoided and/or minimized through preparation and implementation of a standard TMP. Caltrans will notify affected police and emergency service providers at least one week in advance of any lane or roadway closures or impacts related to access. With implementation of standard TMP measures, the project would not result in construction-period effects to police and emergency service providers.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. Recreation:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located near a recreational area. The project would not induce population growth in the area, and no increased demands for recreational facilities would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is intended to result in beneficial effects to traffic operations at the SR-12/Church Road intersection by separating left- and right-turning traffic from through traffic. The project would also improve motorist safety by correcting non-standard shoulder widths and removing the 25 trees that are in the clear recovery zone. The project would not generate new sources of vehicle traffic or change existing traffic circulation patterns; therefore, there would be no impact to adopted transportation plans or congestion management plans.

Short-term emergency access impacts associated with lane closures, detours, and construction activities would be avoided and/or minimized through preparation and implementation of a standard TMP.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XVII. Tribal Cultural Resources				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not listed or eligible for listing in applicable registers of historic resources. Formal letters were submitted to the Yocha Dehe Wintun Nation and the Cortina Band of Wintun informing them of the proposed project. The Cortina Band of Wintun did not request consultation, and the Yocha Dehe Wintun Nation was not aware of any known cultural resources near the project site.

XVIII. Utilities and Service Systems:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As discussed in **Section IX, Hydrology and Water Quality**, the proposed project would add approximately 1.7 acres of impervious surface, which would generate new sources of stormwater runoff. However additional runoff generated on the project site would be captured by onsite retention facilities, and would not enter municipal stormwater drainage systems. The project would not induce population growth, and no increased demands for other utilities and service systems would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIX. Mandatory Findings of Significance				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This cumulative impact analysis determines whether the proposed project, in combination with other approved or foreseeable projects, would result in a significant cumulative impact. Reasonably foreseeable future projects include the land use developments listed in **Section 7, Planned Development**.

If the project would not result in a direct or indirect effect on a resource, then it would not contribute to a cumulative impact on that resource, and does not require further evaluation. As demonstrated above, the project would have no impact to air quality, geology and soils, greenhouse gas emissions, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources and utilities and service systems. Therefore, these resources are not discussed further.

Certain resources are not vulnerable to cumulative effects. For example, cultural resources and hazardous materials related to future development in areas surrounding the project limits are site specific. There is no additive effect of cultural resources or hazardous materials associated with other approved or foreseeable development and the project, and no further cumulative analysis of these resources is warranted.

As discussed in **Section I, Aesthetics**, roadway improvements and associated tree removal would slightly alter views in the project vicinity. However, the project would generally conform to the existing visual landscape of the highway corridor, and would not have a cumulatively considerable impact to visual resources in the region.

As discussed in **Section II, Agricultural Resources**, partial property frontages from the surrounding agricultural properties and landscaped areas adjacent to SR-12 would be acquired to construct the project. These partial acquisitions would not affect the agricultural production of the adjacent farmlands, and would not cumulatively contribute to farmland loss in the County.

As discussed in **Section IV, Biological Resources**, project implementation would result in the permanent loss of wildlife habitat; however, based on the relatively small amount of disturbance and the limited habitat suitability within the BSA, it is expected that the project's impact to wildlife habitat would be negligible. Therefore, the project would not cumulatively contribute to biological impacts.

As discussed in **Section IX, Hydrology and Water Quality**, implementation of the project would increase impervious cover at the project site by 1.7 acres. However, treatment for increased runoff would be provided by the proposed onsite bioretention facilities and implementation of other BMPs. Therefore, the project would not cumulatively contribute to hydrological and/or water quality impacts in the area.

As discussed in **Section, XII Noise**, the project would not permanently generate noise, and would not cumulatively contribute to noise levels in the area.

As discussed in **Section, XVI Transportation and Traffic**, the project would not generate new sources of vehicle traffic or change existing traffic circulation patterns. Project construction may require short-term lane closures and detours. This temporary impact would not permanently alter the regional circulation network, and would not cumulatively contribute to transportation and traffic impacts in the area.

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APPENDIX A

LIST OF TECHNICAL STUDIES

SR-12/Church Road Intersection Improvements Project, Preliminary Visual Memorandum. March, 2016.

SR-12/Church Road Intersection Improvements Project, Air Quality Report. April, 2016.

SR-12/Church Road Intersection Improvements Project, Natural Environment Study. April, 2016.

SR-12/Church Road Intersection Improvements Project, California Tiger Salamander Habitat Assessment. April, 2016.

SR-12/Church Road Intersection Improvements Project, Community Impact Assessment. February, 2016.

SR-12/Church Road Intersection Improvements Project, Archaeological Survey Report. April, 2016.

SR-12/Church Road Intersection Improvements Project, Historic Property Survey Report. April, 2016.

SR-12/Church Road Intersection Improvements Project, Historical Resources Evaluation Report. February, 2016.

SR-12/Church Road Intersection Improvements Project, Paleontological Identification/Evaluation Report. March, 2016.

SR-12/Church Road Intersection Improvements Project, Initial Site Assessment. January, 2016.

SR-12/Church Road Intersection Improvements Project, Water Quality Assessment Report. April, 2016.

SR-12/Church Road Intersection Improvements Project, Noise Exemption Memorandum. January, 2016.

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APPENDIX B

LIST OF PREPARERS

STA

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HQE

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CIRCLEPOINT

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Nicole Cuevas, Assistant Planner

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David Cymanski, Principal Engineer, KC Engineering

Jason Minton, Wildlife Biologist, Garcia and Associates

Jim Allan, President, WSA

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Chris Wilson, Branch Chief, Hazardous Waste
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John Yeakel, Branch Chief, Office of Biological Sciences & Permits
Kathryn Rose, Archaeology, Office of Cultural Resource Studies
Melanie C. Hunt, Technical Reviewer
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Shiang Yang, Acting District Branch Chief, Office of Environmental Engineering
Susan Lindsay, Branch Chief, Landscape Architecture
Tim Pokrywka, Office Chief, Office of Geotechnical Design

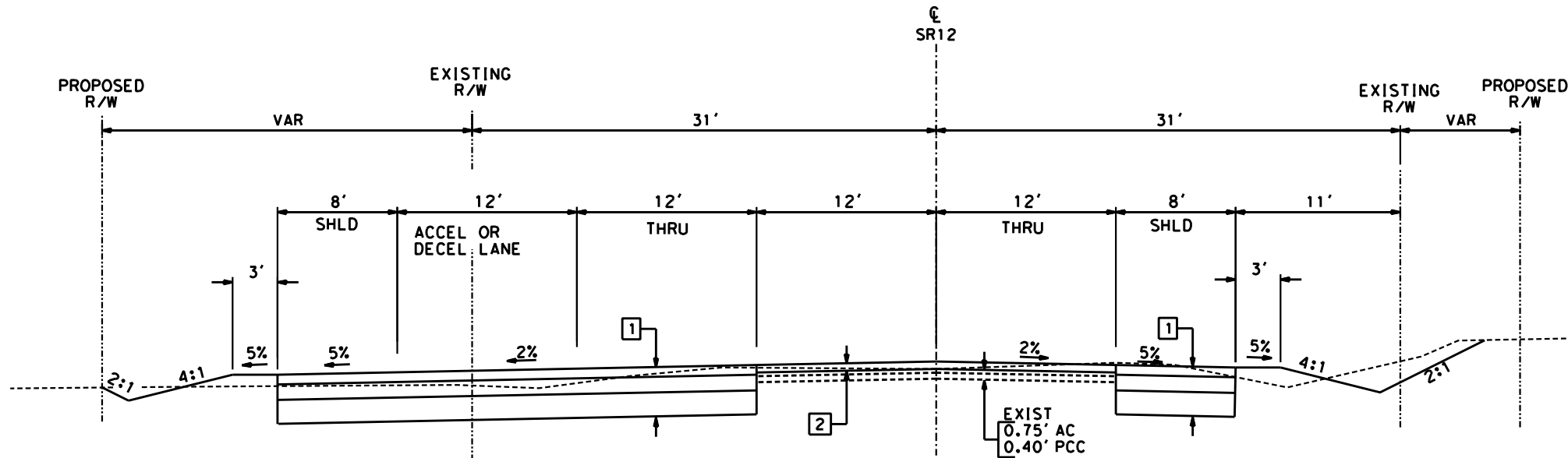
Appendix C

Project Plans

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Dist	COUNTY	LOCATION CODE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Soi	12	24.3/25.2			
REGISTERED CIVIL ENGINEER DATE						
PLANS APPROVAL DATE						
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.						
HOE Incorporated 1756 Locassie Ave Suite 201 Walnut Creek, CA 94596			Solano Transportation Authority One Harbor Center, #130 Suisun City, CA 94585			



ROUTE 12
STA 19+92.57 TO 29+10.00

NOTES:

- PAVEMENT STRUCTURAL SECTIONS SHOWN ARE FOR PLANNING PURPOSES ONLY. FINAL SECTIONS TO BE DETERMINED DURING PS&E.
- TYPICAL STRUCTURE SECTIONS AND CORRESPONDING DESIGN DESIGNATIONS FOR ROUTE 12 ARE FROM THE SR-12 CURRIE RD-AZEVEDO RD CONTRACT PM 20.6/23.5.

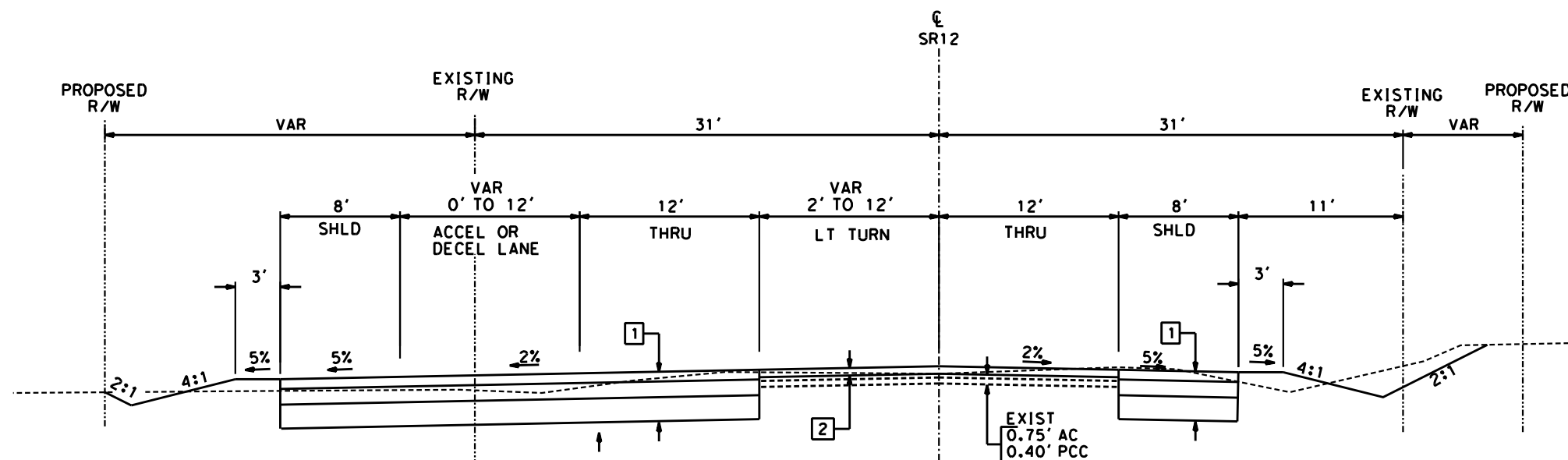
**PRELIMINARY TYPICAL
STRUCTURE SECTIONS**

- 1. 0.65' HMA (TYPE A)
1.05' CL 2 AB
1.60' CL 4 AS
- 2. 0.50' HMA (TYPE A)
- 3. 0.50' HMA (TYPE A)
1.95' CL 2 AB
- 4. 0.20' HMA (TYPE A)

DESIGN DESIGNATION

2012 ADT = 19,600 V = 50 MPH
2035 ADT = 27,100 T = 9.54%
2035 ESAL = 11,140,000 DHV = 2,720

PAVEMENT CLIMATE REGION
INLAND VALLEY



ROUTE 12
STA 13+92.57 TO 19+92.57
STA 29+10.00 TO 35+10.00

TYPICAL CROSS SECTIONS

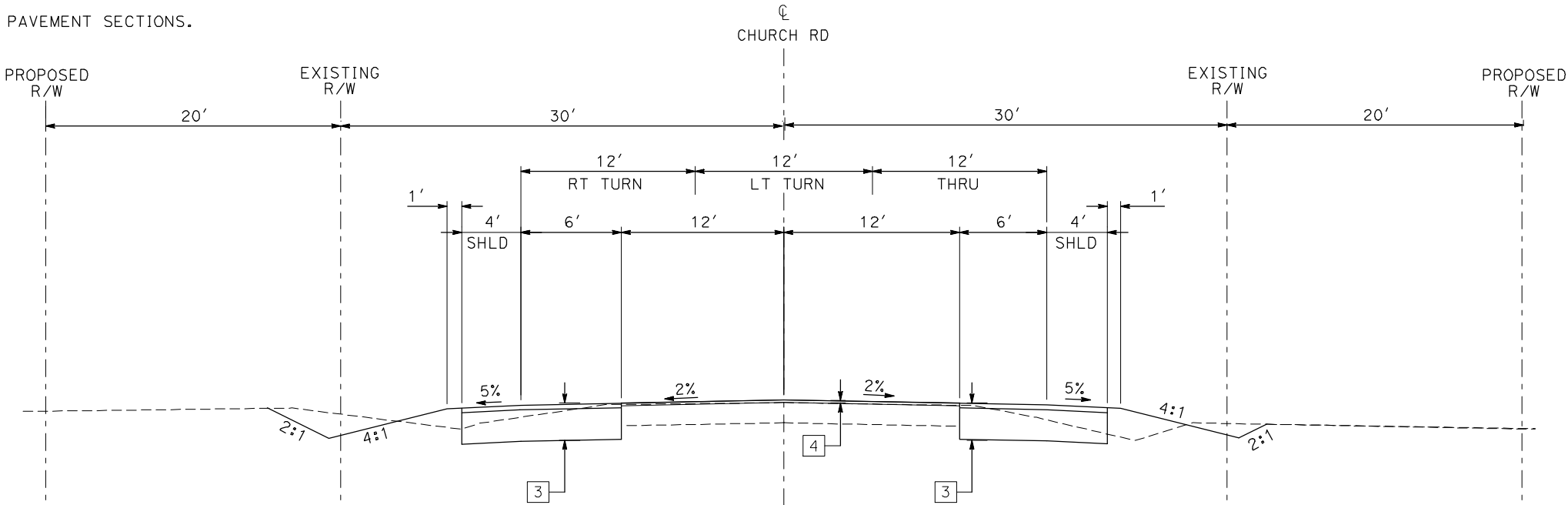
SCALE: NTS

X-1

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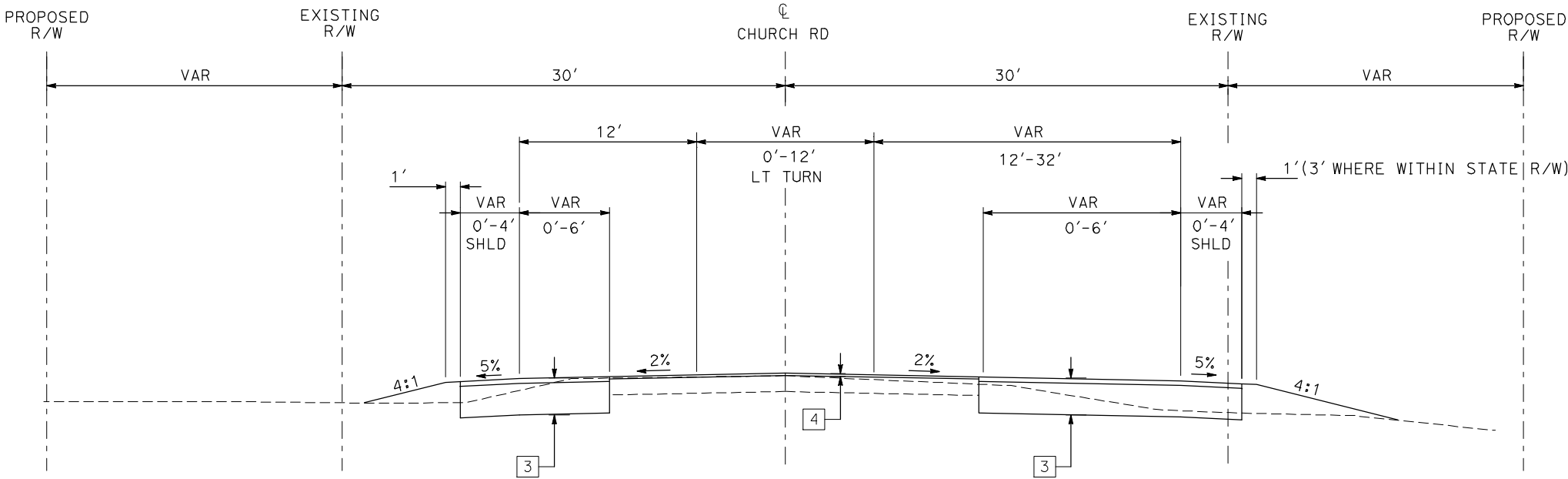
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR				
ETC Caltrans					
				REVISOR BY	
				DATE REVISOR	

NOTE:
SEE SHEET X-1 FOR PAVEMENT SECTIONS.



CHURCH ROAD

STA 5+54 TO 7+10



CHURCH ROAD

STA 4+74 TO 5+54
STA 7+10 TO 9+40

TYPICAL CROSS SECTIONS

SCALE: NTS

X-2

Dist#	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	12	24.3/25.2		

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

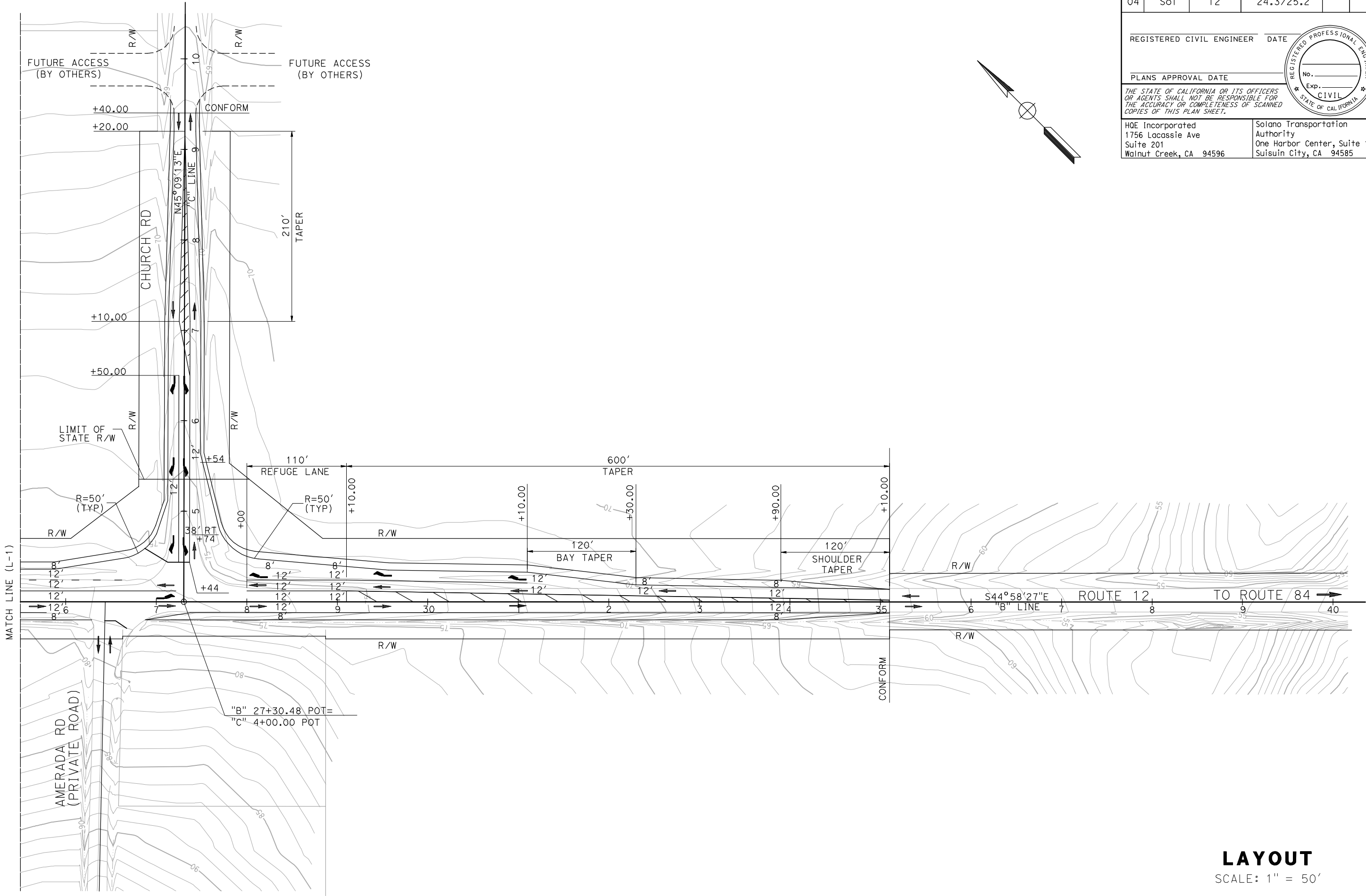
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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	12	24.3/25.2		

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

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Authority
One Harbor Center, Suite 130
Suisun City, CA 94585

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No.

EXP.

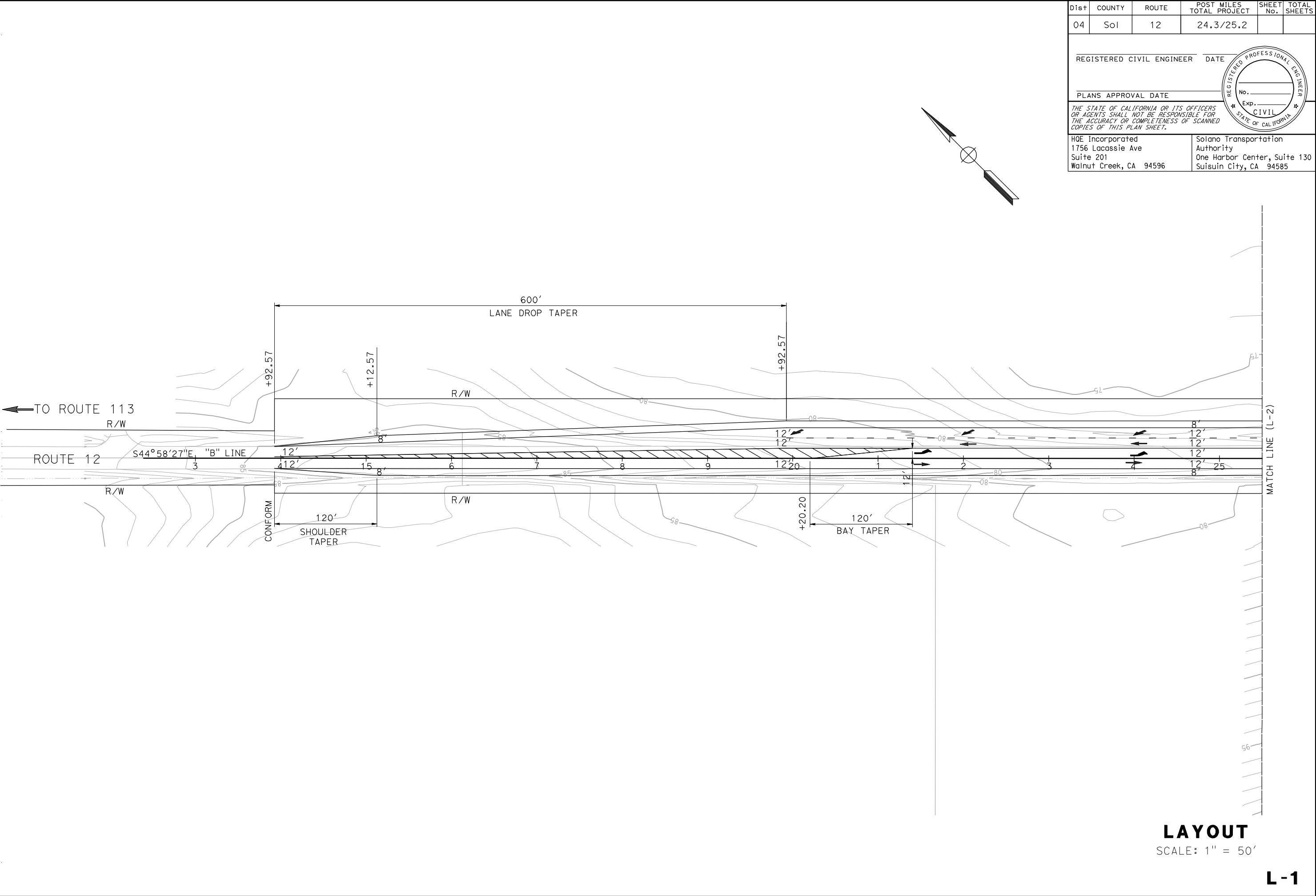
CIVIL

STATE OF CALIFORNIA

LAYOUT
SCALE: 1" = 50'

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		CONSULTANT FUNCTIONAL SUPERVISOR		CALCULATED-DESIGNED BY		REVISOR	
Calttrans®				CHECKED BY		DATE	



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	12	24.3/25.2		

REGISTERED CIVIL ENGINEER

DATE

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REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA

LAYOUT
SCALE: 1" = 50'

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	12	24.3/25.2		
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
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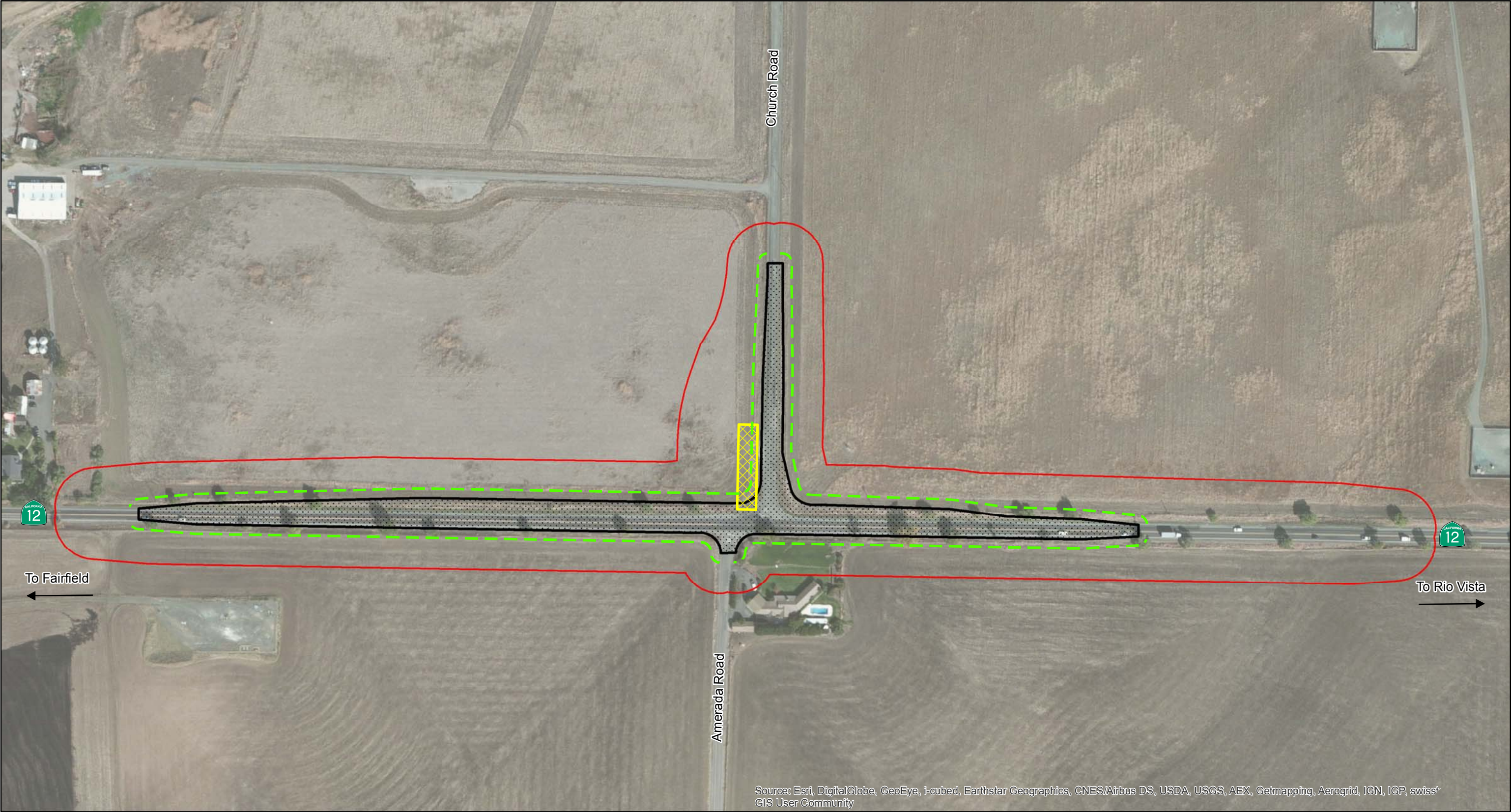


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Appendix D

Biological Study Area

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- Biological Study Area
- Alternative 1 Edge of Pavement
- Staging Area
- Cut/Fill

Scale: 1:2,400
1 inch = 200 feet

0 100 200 Feet

State Route 12/Church Road
Intersection Improvements Project
Rio Vista California

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Appendix E

United States Fish & Wildlife Service Letter of Concurrence and Species Lists

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United States Department of the Interior



In Reply Refer to:
08ESMF00-
2016-I-1662-1

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

Ms. JoAnn Cullom
California Department of Transportation
Environmental Division, MS-8E
111 Grand Avenue
Oakland, California 94612

JUL 13 2016

Subject: Informal Consultation on the State Route 12 Church Road Intersection
Improvement Project, Solano County, California (Caltrans EA 04-0G0500)

Dear Ms. Cullom:

This letter is in response to the California Department of Transportation's (Caltrans) April 7, 2016, request for informal consultation with the U.S. Fish and Wildlife Service (Service) on the proposed State Route (SR) 12 Church Road Intersection Improvement Project in the City of Rio Vista, Solano County, California. The proposed project includes the addition of right and left turn lanes at the intersection of SR 12 and Church/Amerada Road along with other standardization and safety-related improvements. This consultation concerns the effects of the proposed action on the threatened Central California Distinct Population Segment of the California tiger salamander (Central California tiger salamander) (*Ambystoma californiense*). No designated or proposed critical habitat is present within the action area. This letter is issued under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 et seq.) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 6, 2012. Effective October 1, 2012, MAP-21 includes provisions to promote streamlined and accelerated project delivery. Caltrans was approved to participate in the MAP-21 Surface Transportation Project Delivery Program through the National Environmental Policy Act (NEPA) Assignment Memorandum of Understanding (MOU). The MOU allows Caltrans to assume the Federal Highway Administration's (FHWA) responsibilities under NEPA as well as FHWA's consultation and coordination responsibilities under Federal environmental laws for most highway projects in California. Caltrans is exercising this authority as the Federal nexus for section 7 consultation on this project.

According to the March 2016 Biological Assessment (BA) provided by Caltrans, the purpose of the proposed project is to reduce the likelihood of accidents on SR 12 at the Church/Amerada Road intersection, minimize the severity of accidents with fixed objects, and provide a clear recovery zone off the travel lanes. To address these issues, the proposed project includes the additions of left turn pockets and acceleration/deceleration lanes in each direction of travel on SR 12 at the intersection. The project limits will extend approximately 1,312 feet west and 820 feet east of the intersection.

Standardized 8-foot shoulders and drainage ditches will also be added within this zone and overhead and underground utilities will be relocated to the edge of the new right-of-way.

Addition of these features will require widening the existing roadway approximately 32 feet to the north and 8 feet to the south. These adjacent areas are characterized by managed ruderal roadside landscaping, primarily annual weed species and wheat. Clearing and grubbing of this area will also involve the removal of 25 trees. The project will result in the addition of 3.67 acres of hardscape with the use of 1.79 acres of temporary work space. Construction is anticipated to take 12 months.

The action area for the project likely includes the project footprint and a 300 foot buffer. This action area is located within the range of the Central California tiger salamander. A map depicting the species' range is included in the Service's online profile for the species at http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=D01T. The project is also located in the southeast periphery of the Jepson Prairie Management Unit described in the Service's 2016 Draft Recovery Plan for the species (available at http://ecos.fws.gov/docs/recovery_plan/DRAFT_RP_CTS-20160113.pdf). The closest recorded Central California tiger salamander occurrence in the California Natural Diversity Database (CNDDB) is located approximately 7 miles west of the action area in an area of open grassland with nearby stockponds and vernal pools (CNDDB occurrence #1180, CDFW 2016a & b). Comparable and appropriate rolling grassland habitat is located approximately 0.8 mile southwest of the action area, beyond the cultivated row crops which characterize the land in between.

The action area is within historical range of the listed amphibian but due to surrounding land conversion to row crops and residential development, there is limited potential for the species to occur in the narrow strip of ruderal roadside habitat within the Caltrans ROW paralleling the busy SR 12 travel corridor. In addition, there are no discernable breeding pond locations within a 1.3 mile radius of the project. Therefore, the Service believes that it is unlikely that the Central California tiger salamander occurs within the action area and the project is unlikely to result in habitat loss, increased road mortality risk, or other adverse effects that may result in take of individuals.

As part of their project description, Caltrans has committed to implementing environmental measures, which include biological monitoring for various natural resource issues. The measures include reference to the Central California tiger salamander and the project will be suspended and formal consultation initiated with the Service if the listed amphibian is encountered in the action area.

1. **Permits.** Caltrans will include a copy of the any relevant regulatory permits within the construction bid package of the proposed project. The Resident Engineer or their designee will be responsible for implementing the terms and conditions of those regulatory permits.
2. **Biological Monitoring.** An agency-approved biologist(s) will be on-site during initial ground-disturbing activities, and thereafter as needed to fulfill the role of the approved biologist as specified in these measures, and/or project permits. The biologist(s) will keep copies of applicable permits in their possession when on-site. Through the Resident Engineer or their designee, the approved biologist(s) will be given the authority to communicate either verbally, by telephone, electronic mail or hardcopy with all project personnel to ensure that the risk of take to listed species is minimized, and that any permit requirements are fully implemented. Through the Resident Engineer or their designee, the approved biologist(s) will have the authority to stop project activities to minimize take of listed species or if they determine that any permit requirements are not fully implemented.

3. **Worker Environmental Awareness Training.** Prior to working on the project, all construction personnel will attend a mandatory environmental education program delivered by an approved biologist. At a minimum the training will include a description of California tiger salamander and other listed species, migratory birds and their habitats. The training will also discuss the potential occurrence of these species within the action area; an explanation of the status of these species and protection under the Act and other laws; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur.
4. **Pre-construction Surveys.** Prior to any ground disturbance, pre-construction surveys for wildlife species will be conducted by an approved biologist. These surveys will consist of walking surveys of the project limits and, if possible, accessible adjacent areas within at least 50 feet of the project limits. The biologist(s) will investigate all potential cover sites. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the project limits will be documented and relocated to an adequate cover site in the vicinity.
5. **Listed Species On Site.** The Resident Engineer will immediately contact the agency-approved project biologist(s) if listed species are observed within a construction zone. The Resident Engineer will suspend construction activities and regulatory agencies will be contacted. Caltrans will initiate formal consultation with the Service if the Central California tiger salamander is encountered within the action area.
6. **Surveys for Swainson's hawk.** Pre-construction surveys will be completed with the express purpose of identifying any potential nesting by Swainson's hawk within 0.5 mile of the project area. Implementation of these surveys will be consistent with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* produced in 2000 by the Swainson's Hawk Technical Advisory Committee (SHTAC 2000).
7. **Surveys for Burrowing Owls.** Pre-construction surveys will be completed within 15 days prior to the start of construction activities, with the express purpose of identifying any potential nesting by burrowing owls within 300 feet of the project area. Implementation of these surveys will be consistent with the guidelines outlined in Appendix D of California Department of Fish and Wildlife's (CDFW) *Staff Report on Burrowing Owl Mitigation* (CDFW 2012).
8. **Prevention of Wildlife Entrapment.** To prevent inadvertent entrapment of wildlife species during construction excavated holes or trenches more than one foot deep with walls steeper than 30 degrees will be covered at the close of each working day by plywood or similar materials. Alternatively, an additional 4 foot high vertical barrier, independent of exclusionary fences, will be used to further prevent the inadvertent entrapment of wildlife species. If it is not feasible to cover an excavation or provide an additional 4 foot high vertical barrier, independent of exclusionary fences, one or more escape ramps constructed of earth fill or wooden planks will be installed. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, the on-site biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape. If the animal is a listed species, the CDFW and the Service will be contacted by telephone for guidance.

9. **Work Window for Nesting Birds.** To the extent practicable, clearing and grubbing activities and any tree removal will be conducted during the non-nesting season, from September 1 to February 14.
10. **Pre-construction Surveys for Nesting Birds.** Pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than 72 hours prior to the start of construction for activities.
11. **Non-Disturbance Buffer for Nesting Swainson's Hawks and Burrowing Owls.** If an active Swainson's hawk nest or burrowing owl nest is identified during the construction period a non-disturbance buffer will be established in coordination with CDFW. The non-disturbance nest buffer will be a distance sufficient to minimize disturbance based on the nest location, topography, cover, the apparent level of habituation to disturbance, and the intensity/type of potential work activities. This buffer will be at least 300 feet.
12. **Non-Disturbance Buffer for Nesting Birds.** If active nests are observed, a nondisturbance buffer will be established by the Biological Monitor in coordination with CDFW. The non-disturbance buffers will be, at a minimum, 300 feet for an active raptor nests or 50 feet for active non-raptor nests, but may, through consultation with CDFW, be reduced based on the nest location, topography, cover, the species' sensitivity to disturbance and the intensity/type of potential work activities.
13. **Vehicle Use.** Project employees will be required to comply with guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.
14. **Night Work.** To the extent practicable, nighttime construction will be minimized.
15. **Night Lighting.** Artificial lighting of the project site during nighttime hours will be minimized and directed away from non-paved surfaces to the maximum extent practicable.
16. **Trash Control.** All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the work area.
17. **Firearms.** No firearms will be allowed in the project area except for those carried by authorized security personnel, or local, State, or federal law enforcement officials.
18. **Pets.** To prevent harassment, injury or mortality of sensitive species, no pets will be permitted on the project site.
19. **Caltrans Standard BMPs.** The potential for adverse impacts to water quality will be avoided by implementing temporary and permanent BMPs outlined in Section 7-1.01G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind or water-related erosion. The State Water Resources Control Board has issued a National Pollution Discharge Elimination System Statewide Storm Water Permit to Caltrans to regulate storm water and non-storm water discharges from Caltrans facilities. A Storm Water Pollution Prevention Plan (SWPPP) will be developed for the project, as one is required for all projects that have at least 1.0 acre of soil disturbance. The SWPPP complies with the Caltrans Storm Water Management Plan (SWMP). The SWMP includes guidance for Design staff to include provisions in construction contracts to include measures to

protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.

The SWPPP will reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges and can be found at the following website: <http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>

Protective measures will be included in the contract, including, at a minimum:

- a. No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses.
- b. Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses.
- c. Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses.
- d. Dust control will be implemented, including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require.
- e. Coir rolls will be installed along or at the base of slopes during construction to capture sediment and temporary organic hydro-mulching will be applied to all unfinished disturbed and graded areas.
- f. Work areas where temporary disturbance has removed the pre-existing vegetation will be re-seeded with a native seed mix.
- g. Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.
- h. A Revegetation Plan will be prepared for restoration of temporary work areas. Pavement and base will be removed; topography blended with the surrounding area; and topsoil will be salvaged from the new alignment area to be placed over the restored area, which will then be revegetated with native grassland species. Invasive, exotic plants will be controlled within the project site to the maximum extent practicable, pursuant to Executive Order 13112.

20. **Monofilament Erosion Control.** As per Caltrans standards, plastic mono-filament netting (erosion control matting) or similar material will not be used for the project because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

Based on our review of Caltrans' April 7, 2016 request for informal consultation; the March 2016 BA; a May 13, 2016 field visit, and our current knowledge of species occurrence data, action area location, and natural history, the Service concurs with the determination that the project as described is not likely to adversely affect the Central California tiger salamander as

the effects are likely to be discountable. Implementation of Caltrans' proposed measures, such as environmental awareness training, preconstruction surveys, and biological monitoring of construction activities will increase the potential that lethal take of the Central California tiger salamander will be avoided and formal consultation will be triggered if the listed amphibian is found in the action area.

This concludes informal consultation on the proposed SR 12 Church Road Intersection Improvement Project. Therefore, unless new information reveals effects of the proposed action that may affect listed species in a manner or to an extent not considered, or a new species is listed, no further action pursuant to the Act is necessary.

If you have questions concerning this consultation, please contact John Cleckler, Caltrans Liaison [john_cleckler@fws.gov, (916) 414-6639] or me [ryan_olah@fws.gov, (916) 414-6623], at the letterhead address, by telephone, or e-mail.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Olah".

Ryan Olah
Coast-Bay Division Chief

cc:

Melissa Escaron, California Department of Fish and Wildlife, Napa, California
Andrew Amacher, Caltrans District 4, Oakland, California

Literature Cited

California Department of Fish and Wildlife (CDFW). 2012. Staff report on burrowing owl mitigation. Natural Resource Agency. Department of Fish and Wildlife. March 7, 2012. Available at https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html

_____. 2016a. California Natural Diversity Data Base (CNDDB) RAREFIND. Central California tiger salamander occurrence 1180. Natural Heritage Division, Sacramento, California.

_____. 2016b. BIOSIS. Central California tiger salamander occurrence 1180. Natural Heritage Division, Sacramento, California.

Swainson's Hawk Technical Advisory Committee (SHTAC). 2000. Recommended timing and methodology for Swainson's hawk nesting surveys in California's Central Valley.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

July 06, 2017

Consultation Code: 08ESMF00-2016-SLI-0201

Event Code: 08ESMF00-2017-E-06932

Project Name: State Route 12 (SR-12) / Church Road Intersection Improvements Project

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2016-SLI-0201

Event Code: 08ESMF00-2017-E-06932

Project Name: State Route 12 (SR-12) / Church Road Intersection Improvements Project

Project Type: TRANSPORTATION

Project Description: Provide a clear recovery zone off the travel lanes on SR-12 at the Church/Amerada Road intersection. The project includes two alternatives. Alternative 1 would widen SR-12 by approximately 32 feet to the north to accommodate added 8 feet shoulders and turning and acceleration lanes along SR-12. Alternative 2 is identical to Alternative 1 with the exception that the SR-12/Church Road intersection and associated westbound SR-12 turning lanes would be realigned approximately 100 feet to the west.

Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/38.170534614370666N121.70924351991877W>



Counties: Solano, CA

Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Birds

NAME	STATUS
California Clapper Rail (<i>Rallus longirostris obsoletus</i>) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered

Reptiles

NAME	STATUS
Giant Garter Snake (<i>Thamnophis gigas</i>) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog (<i>Rana draytonii</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander (<i>Ambystoma californiense</i>) Population: U.S.A. (Central CA DPS) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt (<i>Hypomesus transpacificus</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened
Steelhead (<i>Oncorhynchus</i> (= <i>Salmo</i>) <i>mykiss</i>) Population: Northern California DPS There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1007	Threatened

Insects

NAME	STATUS
Delta Green Ground Beetle (<i>Elaphrus viridis</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2319	Threatened
San Bruno Elfin Butterfly (<i>Callophrys mossii bayensis</i>) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3394	Endangered
Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp (<i>Branchinecta conservatio</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp (<i>Lepidurus packardii</i>) There is a final critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

There are no critical habitats within your project area.

Intersection of USGS Topographic Quadrangles and NOAA Fisheries ESU/DPS, Critical Habitat, Species Distribution, and Essential Fish Habitat

X = Present on the Quadrangle

Quad Name		Quad Number		Salmonid ESU / DPS (E) = Endangered, (T) = Threatened, (S) = Species of Concern, (NW) = Not Warranted													
				COHO		STEELHEAD							CHINOOK				
				SONCC (T)	CCC (E)	KMP	NC (T)	CCC (T)	SCCC (T)	SC (E)	CCV (T)	CC (T)	CVF (S)	CVSR (T)	SONCC (NW)	SRWR (E)	UKTR (NW)
Rio Vista		38121-B6															
CRITICAL HABITAT																	
Quad Name		Quad Number		COHO		STEELHEAD					CHINOOK			Green Sturgeon	Black Abalone	Leatherback Sea Turtle	Eulachon
				SONCC	CCC	NC	CCC	SCCC	SC	CCV	CC	CVSR	SRWR				
Rio Vista		38121-B6															
Quad Name		Quad Number		Anadromous salmonid DISTRIBUTION			Marine / Estuarine Species DISTRIBUTION										
				Current Known Freshwater & Estuarine Presence			Cetaceans present (see list below)	Green Sea Turtle	Olive Ridley Sea Turtle	Black Abalone	White Abalone	Eulachon	Green Sturgeon	Pinnipeds present (see List Below)	Steller Sea Lion	Guadalupe Fur Seaal	
				Coho	Steelhead	Chinook											
Rio Vista		38121-B6															
Quad Name		Quad Number		ESSENTIAL FISH HABITAT													
				SALMON		Groundfish	Coastal Pelagic	Highly Migratory Species									
				Coho	Chinook												
Rio Vista		38121-B6															

Glossary	
CC	California Coastal
CCC	Central California Coast
CCV	California Central Valley
CVF	Central Valley Fall / Late Fall
CVSR	Central Valley Spring-run
DPS	Distinct Population Segment
ESU	Evolutionarily Significant Unit
KMP	Klamath Mountains Province
NC	Northern California
SC	Southern California
SCCC	South-central California Coast
SONCC	Southern Oregon /Northern California Coast
SRWR	Sacramento River Winter-run
UKTR	Upper Klamath /Trinity River

Data Sources	
Quads - 1:24,000 USGS Topographic Quadrangles (USGS 2014)	
ESU / DPS - Boundary files for species population (NMI) http://www.westcoast.fisheries.noaa.gov/maps_data/species_population_boundaries.html	
Critical Habitat - spatial or narrative CH reference http://www.westcoast.fisheries.noaa.gov/maps_data/endangered_species_act_critical_habitat.html	
SONCC Coho (Federal Register Notice, NMFS 1999)	
CC Coho (Federal Register Notice, NMFS 1999)	
NC Steelhead (GIS data, NMFS 2005)	
CCC Steelhead (GIS data, NMFS 2005)	
SCCC Steelhead (GIS data, NMFS 2005)	
SC Steelhead (GIS data, NMFS 2005)	
CCV Steelhead (GIS data, NMFS 2005)	
CC Chinook (GIS data, NMFS 2005)	
CVSR Chinook (GIS data, NMFS 2005)	
SRWR Chinook (Federal Register Notice, NMFS 1993)	
Green Sturgeon (GIS data, NMFS 2009)	
Black Abalone (GIS data, NMFS 2011)	
Leatherback Sea Turtle (GIS data, NMFS 2012)	
Eulachon (GIS data, NMFS 2012)	
Distribution	
Coho Salmon (CDFW 2012)	http://www.calfish.org/
Steelhead (CDFW 2012)	http://www.calfish.org/
Chinook Salmon (NMFS 2005)	http://www.calfish.org/
Cetaceans (SWFSC 2012)	http://marinecadastre.gov/
Sea Turtles (NMFS 2010)	
Black Abalone (NMFS 2010)	
White Abalone (NMFS 2010)	
Eulachon (NMFS 2010)	
Green Sturgeon	NMFS Staff
Pinnipeds	
Steller Sea Lion (NMFS 2010)	
Guadalupe Fur Seal (NMFS 2010)	
Essential Fish Habitat	
Salmon (NMFS 2014)	http://www.westcoast.fisheries.noaa.gov/maps_data/essential_fish_habitat.html
Groundfish (NMFS 2006)	http://www.westcoast.fisheries.noaa.gov/maps_data/essential_fish_habitat.html
Coastal Pelagics (NMFS 2014)	http://www.habitat.noaa.gov/protection/efh/newinv/index.html
Highly Migratory Species (NMFS 2013)	http://www.habitat.noaa.gov/protection/efh/newinv/index.html

Appendix F

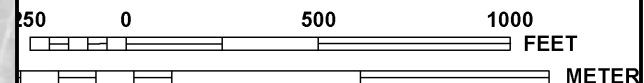
Flood Insurance Rate Map

Map Number 06095C0537E

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MAP SCALE 1" = 500'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0537E

FIRM

FLOOD INSURANCE RATE MAP

SOLANO COUNTY,
CALIFORNIA
AND INCORPORATED AREAS

PANEL 537 OF 730

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
RIO VISTA, CITY OF	060371	0537	E
SOLANO COUNTY	060631	0537	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
06095C0537E

EFFECTIVE DATE
MAY 4, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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Appendix G

Title VI Non-Discrimination Policy

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DEPARTMENT OF TRANSPORTATION

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www.dot.ca.gov



*Flex your power!
Be energy efficient!*

March 2013

**NON-DISCRIMINATION
POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in blue ink, appearing to read "Malcolm Dougherty".

MALCOLM DOUGHERTY
Director

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Appendix H

Environmental Commitments Record

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Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
Construction	Air Quality	The project will follow Caltrans Standard Specification 14-9.01, Standard Specification 10, and Standard Specification 18, which address the requirements of the Yolo-Solano Air Quality Management District (YSAQMD) and dust control and dust palliative application, respectively.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	The project will implement all feasible PM ₁₀ control measures recommended by YSAQMD.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Water all active construction sites at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Haul trucks shall maintain at least 2 feet of freeboard.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Cover all trucks hauling dirt, sand, or loose materials.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Cover inactive storage piles.	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Sweep streets if visible soil material is carried out from the construction site	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).	Air Quality Report	SSP	Construction Contractor
Construction	Air Quality	Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.	Air Quality Report	SSP	Construction Contractor

Environmental Commitments for State Route 12/Church Road Intersection Improvements Project

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Project ID No. 0400000305

Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
Construction	Air Quality	All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.	Air Quality Report	SSP	Construction Contractor
Construction	Biology	An agency-approved biologist(s) will be on-site during initial ground-disturbing activities, and thereafter as needed to fulfill the role of the approved biologist as specified in these measures. Through the Resident Engineer or their designee, the approved biologist(s) will be given the authority to communicate either verbally, by telephone, electronic mail or hardcopy with all project personnel to ensure that the risk of take to listed species is minimized. Through the Resident Engineer or their designee, the approved biologist(s) will have the authority to stop project activities to minimize take of listed species.	Natural Environment Study	NSSP	Caltrans approved biologist
Pre-Construction	Biology	Prior to working on the project, all construction personnel will attend a mandatory environmental education program delivered by an approved biologist. At a minimum the training will include a description of California tiger salamander and other listed species, migratory birds and their habitats. The training will also discuss the potential occurrence of these species within the action area; an explanation of the status of these species and protection under the Act and other laws; the measures to be implemented to conserve listed species and their habitats as they relate to the work site; and boundaries within which construction may occur.	Natural Environment Study	NSSP	Caltrans
Pre-construction	Biology	Prior to any ground disturbance, pre-construction surveys for wildlife species will be conducted by an approved biologist. These surveys will consist of walking surveys of the project limits and, if possible, accessible adjacent areas within at least	Natural Environment Study	NSSP	Caltrans approved biologist

Environmental Commitments for State Route 12/Church Road Intersection Improvements Project

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Project ID No. 0400000305

Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		50 feet of the project limits. The biologist(s) will investigate all potential cover sites. This includes thorough investigation of mammal burrows, rocky outcrops, appropriately sized soil cracks, tree cavities, and debris. Native vertebrates found in the cover sites within the project limits will be documented and relocated to an adequate cover site in the vicinity.			
Construction	Biology	The Resident Engineer will immediately contact the agency-approved project biologist(s) if listed species are observed within a construction zone. The Resident Engineer will suspend construction activities and regulatory agencies will be contacted. Caltrans will initiate formal consultation with the United States Fish and Wildlife Service (USFWS) if the California tiger salamander is encountered within the action area.	Natural Environment Study	NSSP	Resident Engineer
Pre-construction	Biology	Pre-construction surveys will be completed with the express purpose of identifying any potential nesting by Swainson's hawk within 0.5 mile of the project area. Implementation of these surveys will be consistent with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley produced in 2000 by the Swainson's Hawk Technical Advisory Committee.	Natural Environment Study	NSSP	Caltrans approved biologist
Pre-construction	Biology	Pre-construction surveys will be completed within 15 days prior to the start of construction activities, with the express purpose of identifying any potential nesting by burrowing owls within 300 feet of the project area. Implementation of these surveys will be consistent with the guidelines outlined in Appendix D of California Department of Fish and Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation.	Natural Environment Study	NSSP	Caltrans approved biologist
Construction	Biology	To prevent inadvertent entrapment of wildlife species during construction, excavated holes or trenches more than one foot deep with walls steeper than 30 degrees will be covered at the	Natural Environment Study	NSSP	Construction Contractor

Environmental Commitments for State Route 12/Church Road Intersection Improvements Project

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Project ID No. 0400000305

Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		close of each working day by plywood or similar materials. Alternatively, an additional four-foot high vertical barrier, independent of exclusionary fences, will be used to further prevent the inadvertent entrapment of wildlife species. If it is not feasible to cover an excavation or provide an additional four-foot high vertical barrier, independent of exclusionary fences, one or more escape ramps constructed of earth fill or wooden planks will be installed. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, the on-site biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape. If the animal is a listed species, the CDFW or USFWS will be contacted by telephone for guidance.			
Construction	Biology	To the extent practicable, clearing and grubbing activities and any tree removal will be conducted during the non-nesting season, from September 1 to February 14.	Natural Environment Study	NSSP	Construction Contractor
Pre-construction	Biology	Pre-construction surveys for nesting birds will be conducted by a qualified biologist no more than 72 hours prior to the start of construction for activities.	Natural Environment Study	NSSP	Caltrans approved biologist
Pre-construction, construction	Biology	If an active Swainson's hawk nest or burrowing owl nest is identified during the construction period a non-disturbance buffer will be established in coordination with CDFW. The non-disturbance nest buffer will be a distance sufficient to minimize disturbance based on the nest location, topography, cover, the apparent level of habituation to disturbance, and the intensity/type of potential work activities. This buffer will be at least 300 feet.	Natural Environment Study	NSSP	Caltrans approved biologist
Pre-construction, construction	Biology	If active nests are observed, a non-disturbance buffer will be established by the Biological Monitor in coordination with CDFW. The non-disturbance buffers will be, at a minimum, 300 feet for active raptor nests or 50 feet for active non-raptor	Natural Environment Study	NSSP	Caltrans approved biologist

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Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		nests, but may, through consultation with CDFW, be reduced based on the nest location, topography, cover, the species' sensitivity to disturbance, and the intensity/type of potential work activities.			
Construction	Biology	Project employees will be required to comply with guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.	Natural Environment Study	NSSP	Construction Contractor
Construction	Biology	To the extent practicable, nighttime construction will be minimized.	Natural Environment Study	NSSP	Construction Contractor
Construction	Biology	Artificial lighting of the project site during nighttime hours will be minimized and directed away from non-paved surfaces to the maximum extent practicable.	Natural Environment Study	NSSP	Construction Contractor
Construction	Biology	All food-related items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the work area.	Natural Environment Study	NSSP	Construction Contractor
Construction	Biology	No firearms will be allowed in the project area except for those carried by authorized security personnel, or local, State, or federal law enforcement officials.	Natural Environment Study	NSSP	Construction Contractor
Construction	Biology	To prevent harassment, injury or mortality of sensitive species, no pets will be permitted on the project site.	Natural Environment Study	NSSP	Construction Contractor
Construction	Biology	The potential for adverse impacts to water quality will be avoided by implementing temporary and permanent Best Management Practices (BMPs) outlined in Section 7-1.01G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind or water-related erosion. The State Water Resources Control Board (SWRCB) has issued a National Pollution Discharge Elimination System (NPDES) Statewide Storm Water Permit to Caltrans to regulate stormwater and non-stormwater discharges from Caltrans facilities. A Storm Water Pollution Prevention Plan	Natural Environment Study	NSSP	Caltrans/Construction Contractor

December 2016

Project ID No. 0400000305

Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		<p>(SWPPP) will be developed for the project, as one is required for all projects that have at least 1.0 acre of soil disturbance. The SWPPP complies with the Caltrans Storm Water Management Plan (SWMP). The SWMP includes guidance for Design staff to include provisions in construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.</p> <p>The SWPPP will reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges and can be found at the following website: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm</p> <p>Protective measures will be included in the contract, including, at a minimum:</p> <ol style="list-style-type: none"> No discharge of pollutants from vehicle and equipment cleaning are allowed into the storm drain or water courses. Vehicle and equipment fueling and maintenance operations must be at least 50 feet away from water courses. Concrete wastes are collected in washouts and water from curing operations is collected and disposed of and not allowed into water courses. Dust control will be implemented, including use of water trucks and tackifiers to control dust in excavation and fill areas, rocking temporary access road entrances and exits, and covering temporary stockpiles when weather conditions require. Coir rolls will be installed along or at the base of slopes during construction to capture sediment and 			

Environmental Commitments for State Route 12/Church Road Intersection Improvements Project

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Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		<p>temporary organic hydromulching will be applied to all unfinished disturbed and graded areas.</p> <p>f. Work areas where temporary disturbance has removed the pre-existing vegetation will be re-seeded with a native seed mix.</p> <p>g. Graded areas will be protected from erosion using a combination of silt fences, fiber rolls along toe of slopes or along edges of designated staging areas, and erosion-control netting (such as jute or coir) as appropriate.</p> <p>h. A Revegetation Plan will be prepared for restoration of temporary work areas. Pavement and base will be removed; topography blended with the surrounding area; and topsoil will be salvaged from the new alignment area to be placed over the restored area, which will then be revegetated with native grassland species. Invasive, exotic plants will be controlled within the project site to the maximum extent practicable, pursuant to Executive Order 13112.</p>			
Construction	Biology	As per Caltrans standards, plastic monofilament netting (erosion control matting) or similar material will not be used for the project because wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.	Natural Environment Study	NSSP	Construction Contractor
Plans, Specifications, and Estimates	Community	A Transportation Management Plan (TMP) will be developed to maintain property access during construction. The objective of the TMP would be to minimize the effects that construction activities would have on the traveling public. At a minimum, the TMP should include outreach and coordination with affected property owners to minimize the impacts of access disruption of alterations as part of both project design and during construction. Caltrans will notify affected residences, police, and emergency services at least	Community Impact Assessment/Memo	SSP	Caltrans

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Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		one week in advance of any land or roadway closures or impacts related to access. The TMP and construction documents will specify timeframes for roadway and lane closures.			
Plans, Specifications, and Estimate	Hazards	Additional soil characterization will be conducted during the project's design phase to determine whether or not the project soil to be excavated is hazardous or the Caltrans-Department of Toxic Substance Control Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils applies. Proper soil management requirements will be specific in the project's special provisions during the design phase.	Preliminary Site Investigation	SSP	Project Sponsor, Caltrans
Plans, Specifications, and Estimates, Construction	Hydrology	A Stormwater Pollution Prevention Plan is required to reduce the potential for adverse effects of erosion and sedimentation. Typical contract specifications require that Caltrans, through their construction contractors, provide temporary site drainage controls and source and sediment controls to prevent and minimize soil erosion. Construction storm water pollution prevention measures (referred to as BMPs) are focused at specific areas within each construction area to prevent sewer system backup or flow damage to property. The SWPPP is required to identify any potential pollutant sources that may affect the quality of the runoff and identify, construct, and implement BMPs to reduce pollutants in storm water discharges from a construction site	Water Quality Assessment and Technical Report	SSP	Caltrans
Plans, Specifications, and Estimates, Construction	Hydrology	A Stormwater Management Plan (SWMP) is required to address water quality concerns both during and after construction. Caltrans will implement maximum extent practicable (MEP) pollutant control for roadway runoff. In addition, construction site runoff must be controlled using best available technology economically achievable (BAT) for toxic pollutants, and best conventional pollutant control technology (BCT) for other pollutants. Procedures to achieve	Water Quality Assessment and Technical Report	SSP	Caltrans

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Project ID No. 0400000305

Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		compliance with water quality standards are specified in the Caltrans Construction General Permit issued by the State Water Resources Control Board (2009-0009-DWQ, CAS000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), and the National Pollutant Discharge Elimination System General Permit (Order No. 2012-0011-DWQ, as amended by 2014-0077-DWQ) .			
Plans, Specifications, and Estimates, Construction	Hydrology	The City of Rio Vista administers the local Munucupal Stormwater Permitting Program, and implements water quality controls through its Municipal Code. Section 13.20.100, which includes requirements for Long-Term Post Construction Storm Water Discharges, states that any person performing construction in the city shall implement controls as appropriate to minimize the long-term, post construction discharge of storm water pollutants from new development(s) or modifications to existing development(s). Controls shall include source control measures, low impact development design standards, and hydromodification management to prevent pollution of storm water and/or treatment controls designed to remove pollutants from storm water.	Water Quality Assessment and Technical Report	SSP	Caltrans
Construction	Noise	Require all construction equipment to conform to Section 14-8.02, Noise Control, of the latest Caltrans Standard Specifications.	Noise Memo	SSP	Construction Contractor
Construction	Noise	Noise-generating construction activities will be restricted to the allowable hours of construction as identified by local jurisdictions, where feasible. The City of Rio Vista Policy 11.15.C, limits the generation of loud noises on construction sites adjacent to existing development to the hours between 7:00 AM and 5:00 PM.	Noise Memo	SSP	Construction Contractor
Construction	Noise	The contractor(s) will equip all internal combustion engine equipment with intake and exhaust mufflers that are in good	Noise Memo	SSP	Construction Contractor

Environmental Commitments for State Route 12/Church Road Intersection Improvements Project

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December 2016

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Project Timing/Phase (PS&E, Pre-Construction, Construction, Post-Construction)	Resource	COMMITMENT	Source	SSP/NSSP	RESPONSIBLE STAFF (Sponsor, Caltrans)
		condition and appropriate for the machines.			
Construction	Noise	Unnecessary idling of internal combustion engines within 100 feet of residences will be strictly prohibited.	Noise Memo	SSP	Construction Contractor
Construction	Noise	The contractor(s) will locate stationary noise generating equipment as far as possible from sensitive receptors.	Noise Memo	SSP	Construction Contractor
Construction	Noise	The contractor(s) will utilize "quiet" air compressors and other "quiet" equipment, where such technology exists.	Noise Memo	SSP	Construction Contractor
Pre-construction	Noise	The contractor(s) will prepare a detailed construction plan identifying the schedule for major noise-generating construction activities and distribute this plan to adjacent noise-sensitive receptors. The construction plan would also list the construction noise reduction measures listed above, as applicable.	Noise Memo	SSP	Construction Contractor
Pre-construction, Construction	Noise	If work is necessary outside of allowable hours, Caltrans will require the contractor(s) implement a construction noise monitoring program and, if feasible, provide additional avoidance measures as necessary (in the form of noise control blankets or other temporary noise barriers, etc.) for affected receptors.	Noise Memo	SSP	Construction Contractor

Appendix I

Comments and Coordination

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DOCUMENT COORDINATION

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps the California Department of Transportation (Caltrans) determine the necessary scope of environmental documentation, the level of analysis required, potential impacts, and mitigation measures as a result of project implementation, and related environmental requirements. Agency consultation and public participation for the proposed project have been accomplished through a variety of formal and informal methods, including project development team (PDT) meetings, interagency coordination meetings, and a public meeting.

Project Development Team

Regular PDT meetings provided the forum for coordination, issue resolution, and information feedback between Caltrans, the Solano Transportation Authority (STA), the City of Rio Vista, and project consultants. The PDT represents various fields of expertise, including design, environmental review, traffic operations, right-of-way, and project management. Since September 2015, the PDT has regularly convened to review the project status, address issues as they arise, and provide overall direction throughout the project development process.

Agency Consultation

In addition to the PDT members, there are several other public agencies involved in environmental clearance of the proposed project. These agencies include the State Historic Preservation Officer (SHPO), the US Fish and Wildlife Service (USFWS), and the Metropolitan Transportation Commission (MTC) Air Quality Conformity Task Force. There are no public agencies whose approval is required (e.g. permits, financial approval, or participation agreements) for the project to proceed.

SHPO Consultation

There are no documented cultural resources within the project limits. The only structure within the immediate area is the single-family residence located on the southeast corner of SR-12 and Amerada Road. This residence was evaluated and determined to be ineligible for listing on the California Register of Historical Resources or the National Register of Historic Places. On April 4, 2016, the SHPO concurred with this determination of ineligibility.

USFWS Consultation

On April 11, 2016, a letter was submitted to the USFWS requesting concurrence on the Caltrans' determination that no adverse impacts to the California tiger salamander would occur. On July 13, 2016, the USFWS concurred with the determination that the project is not likely to adversely affect the California tiger salamander.

MTC Air Quality Conformity Task Force Consultation

The proposed project is listed in the 2015 Transportation Improvement Program (TIP) for the San Francisco Bay Area and the accompanying Air Quality Conformity Analysis adopted by the MTC on September 24, 2014 and approved by the federal Highway Administration and Federal Transit Administration on December 15, 2014. In addition, the proposed project was determined not to be a project of air quality concern by the MTC on February 26, 2016.

Public Participation

Circulation of the Environmental Document

The Initial Study/Proposed Negative Declaration (IS/Proposed ND) was circulated for public review beginning on January 13, 2017, and ending on February 13, 2017. Notification of the public availability of the IS/proposed ND was completed in compliance with CEQA requirements. A letter was developed specifically for elected officials; a flyer was developed for distribution to the community and local stakeholders; and formal CEQA noticing was developed for submittal to the State Clearinghouse and Solano County Assessor-Recorder's Office. A Notice of Availability (NOA) was provided that provided information on the project, including a summary of the proposed improvements, where the environmental document was available for review, the address to where comments could be sent, the close of the comment period, and the time and location for the public meeting.

The following methods were used to distribute the NOA:

- Newspaper advertisements: On January 19, 2017, advertisements for the project's NOA and upcoming Public Open House/Map Display were placed in the local newspaper, the Daily Republic.
- Mailing: An NOA was distributed to the project mailing list, which consists of local elected officials, community resource centers, and stakeholders who previously expressed interest in the project (see **Attachment A**).
- Website: The IS/Proposed ND was posted on the Caltrans website, including information regarding the Open House/Map Display.

The IS/proposed ND was made available online at <http://www.dot.ca.gov/dist4/envdocs.htm>.

Additional copies of the document were also available for review at:

- Caltrans District 4, 111 Grand Avenue, Oakland, California 94612
- Solano Transportation Authority, One Harbor Center, Suite 130, Suisun City, California 94585
- Rio Vista Library, 44 South Second Street, Rio Vista, California 94571
- Trilogy Homeowners Association Trilogy at Rio Vista, 990 Summerset Drive, Rio Vista CA, 94571

When circulated to local community centers such as the Rio Vista Library and the Trilogy Home Owners Association, instructions were enclosed to the addressee on how to make the document available to local residents and post the NOA on their public informational boards.

Public Open House/ Map Display

Information on this project was presented at the Public Open House/Map Display on January 24, 2017, from 6:00 PM to 8:00 PM, at the Rio Vista Library, located at 44 South Second Street, Rio Vista, California 94571. Three City of Rio Vista officials were in attendance: Norman Richardson, Mayor; David Melilli, Director of Public Works; and Isaac George, Community Development Director. Members of the project team in attendance included: Wahida Rashid, Napa & Solano County Branch Chief, Caltrans; Janet Adams, Deputy Executive Director/Director of Projects, STA; Heidi Ouren, Project Manager, HQE Incorporated; Alex Casbara, Senior Associate Planner, Circlepoint; Vitor Machado Lira, Project Associate, Circlepoint.

The purpose of the Public Open House/Map Display was to update the public and receive comments on the proposed improvements. The meeting was held in an informal open house format. Upon entering the meeting room, meeting attendees were encouraged to sign in and take a copy of the NOA, which summarized project goals and timeline, and clarified the environmental review and commenting procedures. Three exhibits included renderings of the proposed project, information regarding the project development process, the range of technical studies performed by Caltrans, the proposed schedule (including environmental, design and construction milestones), and current project status.

Of the 23 meeting attendees, 21 completed the voluntary public sign-in sheets. Attendees interacted directly with members of the project team, who addressed individual questions and offered additional project information. Many attendees wanted clarification on the relationship between the project and other intersection improvement efforts on State Route 12/ State Route 113. Most attendees seemed supportive of the proposed project.

Native American Consultation

An initial request was sent to the Native American Heritage Commission on August 14, 2015, requesting a search of the sacred lands file and a list of interested Native American individuals and parties in Solano County. No sacred Native American sites were identified in a search of the Sacred Lands file by the Commission.

Formal letters informing the Yocha Dehe Wintun Nation and the Cortina Band of Wintun of the proposed project were submitted on October 21, 2015. Both tribes had until November 20, 2015 to formally request consultation. The Yocha Dehe Wintun Nation responded with a letter received on December 14, 2015. The letter stated that the Yocha Dehe Wintun Nation was not aware of any known cultural resources near the project site, and requested Caltrans

contact Anthony Flores, Cultural Resources Site Protection Manager, if any were identified during project construction. The Cortina Band of Wintun did not request consultation.

Comments and Responses to Comments

This section provides responses to comments received during the public review period for the IS/Proposed ND. Copies of all comment letters received up to the end of the public review period and comment cards received during the Public Open House/Map Display held on January 24, 2017 are included below.

Index to Comments

Comments are organized alphabetically (by last name for individual commenters) in the following order: state agencies and members of the public (individuals). The alphabetical identifiers for each comment letter reflect this organization (i.e., S = state agency and I = individual). Each individual comment within a comment letter is identified in the margins by an alpha-numeric code, which also corresponds to the responses prepared to address each comment. For example, Letter I-1, comment I1-1 is addressed in Response I1-1. All agencies, organizations, and individuals who commented on the IS/Proposed ND are listed in Table 1, Index to Comments.

Table 1 Index to Comments

ID	Commenter	Date of Comment
S1	Central Valley Regional Water Quality Control Board	2/8/2017
I1	Cohn, Brent	1/24/17
I2	Donnelly, Sara	1/24/17
I3	Donnelly, Tom	1/25/17
I4	Durham, Lee	1/24/17
I5	Logan, Gloria	1/24/17

Responses to Comments

A copy of each comment letter is provided, followed by responses to individual comments. Copies of the comments received during the public meeting (January 24, 2017) are included in this section. The hand-written comments have been transcribed.

Substantive comments are those comments that are related to the facts of the project, environmental document, or studies. Comments that are only expressing support or opposition to the project are acknowledged as part of the public record. No revisions or modifications to the IS/ Proposed ND text were made as a result of the comments received.

Central Valley Regional Water Quality Control Board

8 February 2017

Zachary Gifford
California Department of Transportation
District 4
111 Grand Avenue, MS-8B
Oakland, CA 94612

CERTIFIED MAIL
91 7199 9991 7035 8487 3410

**COMMENTS TO REQUEST FOR REVIEW FOR THE NEGATIVE DECLARATION,
STATE ROUTE 12 / CHURCH ROAD INTERSECTION IMPROVEMENTS PROJECT,
SCH# 2017012038, SOLANO COUNTY**

S1-1

Pursuant to the State Clearinghouse's 17 January 2017 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Negative Declaration* for the State Route 12 / Church Road Intersection Improvements Project, located in Solano County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources

S1-1 cont'd

Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:

http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit

S1-1 cont'd

requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

S1-1 cont'd

that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

S1-1 cont'd

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.
2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently \$1,084 + \$6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

S1-1 cont'd

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of the waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.



Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Response to Comment Letter S1: Central Valley Regional Water Quality Control Board

S1-1 Caltrans will comply with all of the requirements set forth in this letter. The design team is familiar with applicable permitting requirements of the Regional Water Quality Control Board (RWQCB). As discussed in **Sections IV and IX** of the IS, the potential for adverse impacts to water quality will be avoided by implementing temporary and permanent BMPs outlined in Section 7-1.01G of the Caltrans Standard Specifications. Caltrans erosion control BMPs will be used to minimize any wind or water-related erosion. The State Water Resources Control Board (SWRCB) has issued a National Pollution Discharge Elimination System (NPDES) Statewide Storm Water Permit to Caltrans to regulate stormwater and non-stormwater discharges from Caltrans facilities. A Storm Water Pollution Prevention Plan (SWPPP) will be developed for the project, as one is required for all projects that have at least 1.0 acre of soil disturbance. The SWPPP will reference the Caltrans Construction Site BMPs Manual. This manual is comprehensive and includes many other protective measures and guidance to prevent and minimize pollutant discharges and can be found at the following website: <http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>

The SWPPP will comply with the Caltrans Storm Water Management Plan (SWMP), which includes guidance for Design staff to include provisions in construction contracts to include measures to protect sensitive areas and to prevent and minimize storm water and non-storm water discharges.

SR12 / CHURCH ROAD INTERSECTION IMPROVEMENTS PROJECT



COMMENT FORM

Name:

Brant Cohn

Date:

1/24/17

Affiliation (if applicable):

Address:

511 River Road RV

E-mail:

bjcohn@comcast.net

Comments:

Sounds like a great idea. Should prevent accidents!

I1-1

Please continue on back if necessary.

Response to Comment Letter I1: Brent Cohn

Transcription:

Sounds like a great idea. Should prevent accidents!

I1-1 Thank you for your comment. Your support of the project is noted.

COMMENT FORM

Name: Sarah Donnelly

Date: 1/24/17

Affiliation (if applicable): resident business owner,

Address: 425 S. School board member
2nd Street

E-mail: Sarahsdonnelly

I2-1

Comments:

I deliver (flowers) in my
business and travel from "core"
P.V. to Trilogy. On a daily basis
I watch drivers make very
scary maneuvers & near misses.
2020 will mean 'at least 15
more deaths - unfortunately too
little too late.

Please continue on back if necessary.

Response to Comment Letter I2: Sara Donnelly

Transcription:

I deliver (flowers) in my business and travel from “core” R.V. to Trilogy [sic]. On a daily basis I watch drivers make very scary maneuvers & near misses. 2020 Will mean at least 15 more deaths – unfortunately too little too late.

I2-1 Thank you for your comment. The purpose of the project is to enhance operation and safety characteristics at the SR-12/Church Road intersection. The project development team is eager to design and construct the proposed improvements as soon as environmental approval is obtained and funding is available.

SR12 / CHURCH ROAD
INTERSECTION IMPROVEMENTS PROJECT



COMMENT FORM

Name: TOM DONNELLY

Date: 1/25/17

Affiliation (if applicable): RIO VISTA PLANNING COMMISSION

Address: 425 S. 2ND ST., RIO VISTA, TX 78151

E-mail: donnellyt@me.com

Comments:

I3-1

- 1) HOW DOES THIS WORK WITH THE LARGER TEAM MASTERPLAN FOR HWY 12? I WANT TO MAKE SURE THIS DOES NOT LIMIT THE LARGER TEAM IMPLEMENTATION THROUGH TOWN.
- 2) EASEMENTS ALONG CHURCH ROAD SHOULD NOT LIMIT FLEXIBILITY FOR FUTURE COMMERCIAL DEVELOPMENT IN THAT AREA.

Please continue on back if necessary.

Response to Comment Letter I3: Tom Donnelly

Transcription:

1.) How does this work with the longer term masterplan for Highway 12? I want to make sure this does not limit the longer term implementation through town. 2.) Improvements along Church Road should not limit the flexibility for future commercial development in that area [sic].

I3-1 Thank you for your comment. The environmental document identified the agricultural areas adjacent to the project site that are planned for future residential and commercial development (see **Section 7, Planned Development**). The project improvements are within the State and local rights-of-way assumed in the preliminary concepts for the future developments, including the long-range planning for the widening of SR-12. The project would not preclude the future planned land use development or SR-12 improvements in this area.

COMMENT FORM

Name: LEE DURHAM

Date: 1-24-17

Affiliation (if applicable): _____

Address: 608 AMERICAN FALLS DR

E-mail: LEED1221@LIVE.COM

I4-1

Comments:

I THINK THE PROJECT DESIGN
PRESENTED MAKES NO SENSE TO ME,
AT THIS TIME A TRAFFIC LIGHTS SITE SHOULD
BE CONSIDERED INSTEAD OF SPENDING
MANY THOUSANDS OF \$ TO DEVELOPE LANES
THAT AT SOME POINT WILL BE REMOVED
TO ACCOMADATE FUTURE PLANS IE 4/LANE
FREEWAY -

Please continue on back if necessary.

Response to Comment Letter I4: Lee Durham

Transcription:

I think the project design presented makes no sense to me. At this time a traffic light should be considered instead of spending many thousands of dollars to develop lanes that at some point will be removed to accommodate future plans IE 4 lane freeway-[sic].

I4-1 Thank you for your comment. Applicability of traffic signal warrants (i.e., the determination of when a traffic signal is needed) considers 8-hour vehicle volume, 4-hour vehicle volume, peak hour delay and volume, pedestrian volume, crash experience, and roadway network. Traffic signal warrants listed in the California Manual on Uniform Traffic Control Devices (MUTCD) 2014 Edition were not met for the SR-12/Church Road intersection. Given this, installment of a traffic signal at the intersection was not included as part of this project.

COMMENT FORM

Name: Gloria Logan

Date: 1/24/17

Affiliation (if applicable): _____

Address: 535 Valley Landing Lane, Rio Vista, CA 94571

E-mail: LoganGloria@bellsouth.net

I5-1

Comments:

Really need a light at Church Road + SR 12. As
an older person I need time to accelerate onto
SR 12.

white lines on the outside of the lanes need to
be on every inch of SR 12. They are very helpful
in rainy weather.

Traffic needs to be monitored more frequently—
lots of speeders and people driving right on your
bumper.

Please continue on back if necessary.

Response to Comment Letter I5: Gloria Logan

Transcription:

Really need a light at Church Road + SR12. As an older person I need to accelerate onto SR12 [sic]. White lines on the outside of the lanes need to be on every inch of SR12. They are very helpful in rainy weather. Traffic needs to be monitored more frequently – lots of speeders [sic] and people driving right on your bumper.

I5-1 Thank you for your comment. Caltrans strives for a safe and efficient transportation system, and is eager to address these concerns by implementing the proposed project. Existing street lighting at the SR-12/Church Road intersection will be perpetuated with the project. See response I4-1 for a discussion of why a traffic signal was not included as part of the proposed project. Specific types of lane striping will be considered during the final design phase of the project.

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Attachment A

Project Mailing List

Name	Affiliation / Address	Package Sent	
		Notice of Availability	Printed Initial Study
Individual Stakeholders			
Greg Bowman	Rio Vista Interim City Manager/Chief of Police	X	
Cecil Dillon	Rio Vista City Engineer	X	
Gary & Kim Esperson	Property Owners	X	
Richard & Sue Esperson	Property Owners	X	
Issac George	Rio Vista Planning Manager	X	
Gary Mahlock	Grizzly Inc. (Marks Ranch)	X	
David Melilli	Rio Vista Public Works Director	X	
Chris Nolan	Shea Homes (Trilogy)	X	
Louis Parsons	Discovery Builders (Riverwalk)	X	
Harry Ralston	California Resources Corporation	X	
John Wyro	The Wyro Company (Esperson)	X	
Kadee Moskaluk	Marbello	X	
Kevin English	Discovery Builders	X	
Key Community Resources			
Rio Vista Chamber of Commerce	50 N. 2nd Street	X	
Rio Vista Rotary Club	P.O. Box 513	X	
Rio Vista Lions Club	P.O. Box 362	X	
Rio Vision	187 Main Street	X	
Rio Vista Senior Center	25 Main Street	X	
Rio Vista Library	44 South Second Street	X	X
River Delta Unified School District	445 Montezuma Street	X	
City of Rio Vista Public Works Department	One Main Street	X	
Rio Vista Community Center			
Trilogy Home Owners Association	990 Summerset Dr	X	X